POPULATION ANTHROPOLOGY

SELECTED PAPERS ON TRIBAL CULTURE, DEMOGRAPHY & DEVELOPMENT

Nirmal Chandra Dash
Professor Emeritus

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Selected Papers on
Tribal Culture, Demography & Development

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To
My Parents
and Teachers

ABOUT THE BOOK

The Present Book is a compilation of Thirty selected papers on Tribal Demography, most of which are based on empirical work and others on Census data. The book provides socio-economic, educational and demographic profile of the tribes under study. Complete demographic pictures like population structure and composition, health and disease, fertility, mortality and family welfare practices have been clearly outlined.

This volume will be useful to students and scholars of various disciplines like Anthropology, Demography, Economics, Geography, Sociology and Population Studies. The book will also be helpful to others those are interested in Tribal Demography and Tribal Studies.

N. C. Dash

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PREFACE

Population Anthropology (TRIBAL DEMOGRAPHY) has emerged as a multi-disciplinary subject at present. Scholars from various disciplines like Anthropology, Demography, Economics, Geography and Sociology have been taken increasingly interest in studying the socio-economic and demographic profile of several tribal communities in the world. More particularly, Anthropology and Population Science (Demography) former being the "science of human" and the latter being the "Science of human population" deal with the most complex creature of this planet - HUMAN, the cultural animal. Demography is no more a mere technical subject, although previously statisticians and mathematicians were dominating the field of demography. Computation of several models, correlations, regressions, projections etc. were considered as the important factors in demographic studies . When all calculations and projections did not hold good, demographers thought of the **human factors** to be more responsible for changing the demographic scenario.

The so called "human factor" is nothing but the cultural values of a community. If the society is a body, then culture, is its life. As life is to body same is the role of culture to a society. So before highlighting the economic, educational or demographic problems of any community one has to study and understand the role of culture in all these aspects. To best understand the role of culture, micro level studies of several communities are to be undertaken. In view of this, learned demographers have now sifted their attention to such small-scale studies among the small and simple societies. Thus, developed the importance of tribal demography which is termed differently according to suitability, such as Ethno-demography, Demography of primitive societies, Demography of non-industrial societies, Demography of the nomads, Demography of the hunters and food gatherers, Demography of the jungle people and so on. However, all the above are included under **Population-anthropology** or Anthropo-demography.

The present volume is a collection of some selected papers on socio-economic, educational demographic son preferance health nutration and developmental aspects of defferent tribes (The Juang, Kondh/Kandha, Gond/Ganda, Gadaba, Saura/Soara, Bhumija, Lodha, Mankirdia/Mankidia and the Toda) based on both empirical and census data. Although some of the papers belong to the late 70's they serve as a base line work and are of immense value to the Tribal Demographers and others those are interested in Tribal Researches.

I am confident that this book would cater the needs of the numerous students, researchers, scholars and those interested in tribal studies particularly on Tribal Demography or Population Anthropology.

Bhubaneswar,
26/01/2023
Saraswati Puja

Nirmal Chandra Dash

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1. POPULATION ANTHROPOLOGY: AN APPRAISAL

Population Study (Demography) as understood by now is the multi dimensional study of human population which encompasses both biological aspects such as fecundity, fertility, morbidity, mortality and a social aspect which includes migration, urbanization, education, population structure and above all, the culture of the group. All these aspects are studied and understood in both substantive as well as technical ways. Always the study is being conducted or reference is being given of a group or of a geographical entity starting from a village to a nation and of the world as a whole. Comparison is made between two groups, two geographic entities or among the many. Further, various cross sectional comparisons are also made within a group or within a territory. Sometimes different social, economic, educational, religious and occupational variables are taken into account to find out their individual or combined impact on demographic components. Such studies are commonly called differential fertility, differential mortality or differential demography.

Anthropology, on the other hand, is the holistic study of human beings. It studies the origin, development (both biological and cultural) and the contemporary societies, both tribal and peasant. The term "tribe" has its origin from the Latin word TRIBUS meaning one of the divisions of the ancient Roman people. Hence by origin, tribe is a division (a section, a group) of people. However, for an Anthropologist the term tribe refers to a type of society and describes a stage of social evolution, the former signifies a set of characteristic features and the later connotes a specific mode of social organization. But towards the end of 19th Century this meaning of tribe was extended and now a tribe means an endogamous group which is a collection of clans (smaller exogamous functional groups), individualized by a distinct name with a separate dialect, sharing a common way of life and a political system within a defined territory. Sometimes a community does not have a well defined

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political organization but there is a functional head with a demarcated territory. However, in Indian context, the tribe refers to an indigenous people, usually designated as Vanyajati (The forest dwellers), Adivasi (The aboriginal settlers), Girijan (The hill dwellers), Adimjati (The aboriginal people), Janjati (The autochthonous people). Those tribes which are listed under the 5th and 6th Schedule of the Constitution are designated as the Anusuchit Janjati (The Scheduled Tribes), (Bose 1971, Bhowmik 1971 and Behura 1990).

Peasants refer to a small-scale agricultural and pastoral community. However, for Anthropologists, peasants either own a piece of land or even cultivate other's land on a sharing basis. Whereas the pastorals (mostly semi-nomadic) own a herd of animals (cattle, goat, pig, camel etc). Peasants are otherwise known as Agrarian, Agricultural, Farming, non-industrial little communities, (Redfield 1956, Marriott 1955, Beteille 1974).

Thus literally speaking, when a demographic study is conducted on a tribe, it is known as the study of tribal demography. Very often we come across terms like Ethno-demography (demographic study of ethnic groups), Population-anthropology or Anthropo-demography (Demographers entering into Anthropo-demographic aspects). However, in the beginning Demographers were more interested in secondary data, i.e. Census findings, Vital registrations and such other records of population figures and Vital events. Such data were normally used for the construction of various demographic models, life tables and other mathematical calculations like estimations and projections. In other words, the technical aspect of demography was of much importance to the former scholars. During the 1960s some social-demographic studies were conducted among the non-industrial and pre-literate societies, which are now called Tribal demographic studies. Gradually Demographers and Anthropologists have rightly felt the importance of these empirical demographic studies. Since then many scholars all over the world are being engaged in tribal and social demographic research.

The relationship between Anthropology and Demography is so close that the Oxford dictionary describes 'demography' as a part of

Anthropology which studies the statistics of births, deaths and diseases. We even find the term 'anthropological demography' or 'population anthropology' in the dictionary of demography which explains that such terms strictly refer to demographic studies of fertility, mortality and migration among the small human communities, usually studied by the Anthropologists. However, at present such terms are commonly used to refer to the multitude of more general empirical population studies carried out by the Anthropologists as well as by the Demographers.

As early as 1936, Raymond Firth an eminent Anthropologist in his book, We the Tikopia, wrote a separate chapter on the population problems of the Tikipian islanders. He has described their fertility regulation pattern by which the Tikopians by and large maintain a Stable Population. However, he has not dealt with the specific ways by which they distinguish between the health problems and family welfare problems. Inspite of the criticism, the work of Raymond Firth has been an example to other Anthropologist of as well as social Demographers. Even today many scholars, those who are engaged in tribal demographic studies, eagerly search for this piece of work. Almost after an interval of one and half decade, in 1950 Park in his book, Race and Culture, has described the impact of migration on the tribal communities. However, Frank Lorimer and his collaborates in 1956 had brought a more comprehensive publication under the UNESCO streamer, Culture and Human Fertility which is considered as a pioneer work, specially on Anthropo-demography or a work on Population Anthropology.

Nearly one year after, in 1957, C.B. Mamoria published the first book on Tribal Demography which has not been attracting the Demographers as well as the Anthropologists even today. The book, Tribal Demography in India, was published by Kitab Mahal, Allahabad. However, Mamoria has used the Census data for his piece of work. Considering the importance of tribal demography some dynamic scholars, particularly the anthropologist, have studied the demographic aspects of some selected tribes. Birdsell (1958), has studied the population structure and composition of the hunting and food gathering societies. In his study he has shown how the hunting and food gathering people are able to fight against the double risk of mortality during the

economic active age group and could maintain a smooth age and sex structure. Nag (1962) has found that the postpartum abstinence and sterility due to venereal diseases are the main factors which greatly affect the fertility level of the non-industrial people. Cancian (1964) in his study of Maya Highlanders has stated that the population pressure is being balanced by their socio-cultural practices. The study of Malhotra (1966) shows the household structure and the socio-economic features among the desert people. Nag (1970) and Kasdan (1970) have studied the impact of migration on population structure and composition along with the impacts on their socio-economic and psychological behavior.

Carr-Saunders in 1972 has brought out a book based on comprehensive empirical study among the non-industrial societies. He has described the cultural factors, social restrictions and other indigenous practices that directly influence the fertility level of the people. He has pin pointed some social factors such as pre-pubertal sex, prolonged lactation and abstinence to be widely practiced which are responsible for their low fertility. Ali (1973) in his book Tribal Demography In Madhya Pradesh, has presented the socio-economic and demographic profile of the tribes of Madhya Pradesh. Ali has clearly confessed that he has been inspired by the masterpiece work of C.B. Mamoria, stated earlier. Mandelbaum (1974) has described that social and cultural factors have a direct impact on fertility. Orent (1975) also studied the Kafa population of South Western Ethiopia and has described that the socio-cultural factors have a negative impact on population growth.

Sinha's work tribal demography (1976) and (1986) have drawn attention from all parts of India. He has described the tribal growth, structure and composition and has estimated the birth and death rates of tribes of India. Although Prof. Sinha is an expert in the field technicaldemography (particularly on mortality) his general demographic analysis of tribal population has been praiseworthy. But like other demographers, he has also made use of Census data. Sharma (1978) has studied the level of fertility and mortality among three Kandh villages of Orissa. He has observed that women in lower age groups give birth to fewer children than those in higher age groups. Average Kandh fertility

is lower compared to their non-tribal counterparts. However, mortality (particularly infant mortality) is very high among Kandhs. Naidu (1979) in his study of family planning acceptance among the Juang and Bhuyan dominated block (Banspal) in Kendujhar district of Odisha, has found that the rate of family planning acceptance are very low and the acceptors have preferred vasectomy as the suitable method for them. Pandey (1989) has reported that the average number of children born to tribal women is lower as compared to the non-tribal, in his study among the tribes of Madhya Pradesh. He has also found that the fecundity of tribal women is lower than non-tribal women. Very interestingly he has stated that the fertility performance of tribal couples would not be very considerable even if the Present age of marriage is raised by 4 to 5 years. However, he has not given any specific reason for this. Gandotra (1989) in another study among the Dangis of Madhya Pradesh find relatively high fertility, but contrastingly they show low death rates. Patel (1993), in his comparative fertility study among the Koyas and the Kandhs, writes that the total fertility rate of the later is higher (6.23) than that of the former (5.39).

Prof. Jones and others have studied the demographic profile of a forager community (The Hadza) of the Savanna and have reported that their growth is not only high but their density is also high (B. Jones et al 1992). Demographic profile of an Iron age population was surveyed by Aleson and his team in the 1990s and described their population composition and vital statistics (Aleson et al, 1999).

Prof. Dash (the present author) and others have studied many demographic aspects of the tribal communities of Odisha over last four decades (since late 1970) They have also made use of the Census data in some of their publications. All those studies show that the tribes of Odisha have a high birth rate, high death rate, high infant and maternal mortality rates. Tribes of Odisha show low growth rates compared to the general population of the State. Their nutritional status is also poor (the average adult calorie intake is about 1650 calories) Considering the socio-demographic features of the tribes of Odisha one could safely conclude that the tribes of Odisha live in the early stage of Demographic Transition. However, the child bearing span has decreased almost by 10 years i.e. on an average, the tribal women have their last child birth

at the age 35 years. There is no gender preference among the tribes of Odisha as observed in some of the studies, (Dash & Mahapatra 1977), (Dash 1979a, 1979b, 1979c), (Dash and Sahu 1995, 1998), (Dash and Sabat 1996, 2001), Dash and Dash (1997, 2003), Dash (1999, 2000, 2002, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2918, 2019).

Prof. Bekel has carried out a comparative study on age and sex composition among to Ethopian communities, (Bekel 2006). Prof. Ota and Mohanty have described the sex ratio, marital status, literacy, work force and dependency ratio of the Scheduled Tribes of Odisha basing on the Census data of 1961-2011, (Ota and Mohanty 2015).

Since last decade, Anthropologists have also studied sex and age differential by analyzing the diseases and skeletal materials. Prof. Chan and others have estimated the age at death from the human femur, (Chan 2007). Prof. Witte has an interesting study on the sex differences in dental problems, (Dewitte 2012). Prof. Couoh has described the age differences between deaths by studying human skeletons, (Couoh 2017).

Thus it is observed from the above discussion that Anthropologists and Population scientists (Demographers) have done several works on tribal Demography (Population Anthropology). Gradually more and more demographic studies are being undertaken among the Tribal non industrial populations and also on the human skeletal materials.

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2. SOCIAL STRUCTURE AND DEMOGRAPHY OF THE TRIBES OF ORISSA

Ethnic confusion:

The first problem to resolve, while discussing social structure and demography of the Scheduled Tribes in Orissa, is to clear the confusion in the Schedule of Tribes in Orissa as per the Presidents' orders under the constitution. It is a different issue whether the census authorities do discover separately members belonging to some Scheduled Tribes who are actually of the same ethnic stock. Similarly, because of lumping together of several ethnic categories due to administrative or other decisions, some particular Schedule Tribes stand for two or more ethnic groups. The first type of confusion can be seen with reference to three Scheduled Tribe. Birhor, Mankida and Mankirdia, who actually belong to the Birhor ethnic group and are known in Orissa in different areas as Mankidi or Mankirdia following the same occupation, speaking the same language and having the same social structure . Again, the Kuli, as the Kol has been shown to be separate from the Ho and the Kolha. The Munda and the Mundari are again shown to be separate groups. Further the Mahali and the Munda-Mahali, the Lodha and the Sabar or Lodha, the Binjhal and Binjia are included as separate Scheduled Tribes. In the second category of confusion the Saora of Ganjam and Koraput agencies have been lumped together with the Sahara who are very much separate from them and are distributed in other districts. Similarly, we have a Scheduled Tribe called Koli including another ethnic group, Malhar. Similarly, Kolha, Kol and Loharas, are included in one Scheduled Tribe category, as Munda, Munda-Lohar, Munda-Mahali are included in another Scheduled Tribe category. Because of such confusion of ethnic categories in the Scheduled of tribes on Orissa, there are bound to be some demographic and structural confusion. But before this confusion,in the interest of comparison and expeditious use of the available documents and statistics we may still use the imperfect scheduling of ethnic group in the list of Scheduled Tribes of Orissa.

Tribal Problems of Today & Tomorrow, Page 9-16, Bhubaneswar,1997, jointly with Prof L.K.Mahapatra

Growth and Decline of Scheduled Tribe Population ,1951-71:

When we compare the growth of total population in Orissa between 1951 and 1971 censuses with that of the Scheduled Tribe in the same period we come across some very significant difference. Whereas the total population registered and increase only 19.82% during the decade 1951-61 the Scheduled Tribe population experienced a phenomenal growth with 42.34% increase in the same period. This unprecedented increase may be partly explained due to the inclusion of 18 more tribes in the Orissa list of Scheduled Tribes on recommendation of the Backward Classes Commission. Migration of the members belonging to the Munda, Oraon and perhaps Ho Scheduled Tribes of Bihar may also partly explain this heavy increase in the decade. This is evidenced, though indirectly, from the discrepancy between the growth of total population of Sundargarh district during 1951-61 (37.38%) and that of the Scheduled Tribe population during the same period (41.03%). Similar is the picture from a comparison of the growth of the total population (17.03%) and of Scheduled Tribe population (44.60%) during 1951-61 in Mayurbhanj district of Orissa. The unusualness of 1951-61 decade is even more clear form a comparison with 1961-71 decade. While the total population increased by 25.05% during the decade, Scheduled Tribe population increased only 20.08% the same pattern of lower growth rate of the Scheduled Tribe population during 61-71 decade exemplified in the proportion of the Scheduled Tribe proportion (23.11%) in the 1971 census whereas it was 24.07% in 1961 census. The Scheduled Tribes formed merely 20.26% of the total population in 1951 census and this had increased to 24.07 in 1961 census because of the unusual factors referred to above.

The growth and decline of Scheduled Tribe population can be more fruitfully studied when we take each individual Scheduled Tribe. We are more fortunately placed in 1961 and 1971 censuses than in the 1951 census. We have selected only 18 Scheduled Tribes of 50.000 or more population in 1961 because of our limitation of time and space. The tribes and their population increase have shown in table-1

Table- 1 : Decadal Growth of Scheduled Tribes, 1961-71 (Tribes Numbering more than 50.000 in 1961)

Sl. No.	Names of the tribes	Population 1961	Rank	Population 1971	Rank	Decadal Growth Number	%
01.	Bhatudi	104,542	14	130792	14	+26250	25.11
02.	Bhotoda/ Dhotada	159,091	09	194842	09	+35751	22.47
03.	Bhuyan	156,878	10	188212	10	+31334	19.97
04.	Bhumia	50,294	18	61900	17	+11606	23.08
05.	Binjhal	76,692	16	83873	16	+7181	09.36
06.	Gondo	445,705	02	499267	02	+53562	12.02
07.	Kharia	96,691	15	120483	15	+23792	24.61
08.	Khonda	818,847	01	869956	01	+51109	06.24
09.	Kisan	125,668	12	180025	11	+54357	43.25
10.	Kolha	203,515	06	309588	05	+106073	52.12
11.	Koya	55,284	17	59168	18	+3884	07.03
12.	Munda	221,399	05	222117	07	+718	00.32
13.	Oraon	129,061	11	164619	12	+35558	27.55
14.	Paraja	159,866	08	206699	08	+64833	29.30
15.	Santal	411,181	03	452953	03	+41772	10.16
16.	Saora	311,614	04	342757	04	+30143	09.99
17.	Shabar/Lodha	193,613	07	240344	06	+46731	24.14
18.	Bhumij	116,181	13	146978	13	+30797	26.51

We find the Munda have been registered the minimal decadal growth (0.32%) whereas the Kolha have, to their credit, a phenomenal growth (52.12%) during the same period. The most numerous Scheduled Tribe, the Khond have shown a growth rate of merely 6.24% and another important Scheduled Tribe, the Saora have registered about 10% growth during.

It is very disheartening to note that as many as 11 Scheduled Tribes have registered decline in their population 1961-71 decade. The details are given in Table-2.

Table-2 : Tribes Declining During 1961-71

Sl. No.	Name of the tribe	Population 1961	Population 1971	Decline 61-71	Percentage of decline
01.	Bogota	1511	262	- 1249	82.66%
02.	Birhor	279	98	- 175	64.66%
03.	Chenchu	52	8	- 44	84.62%
04.	Jatapu	10801	8047	- 2754	25.50%
05.	Kol	46397	1033	- 45364	97.78%
06.	Kondadora	16426	9286	- 7240	43.81%
07.	Kora	7189	3961	- 3228	44.90%
08.	Mankidi	627	333	- 294	46.89%
09.	Parenga	6801	3032	- 3769	55.11%
10.	Pentia	9656	6266	- 3390	35.11%
11.	Tharua	310	293	- 17	5.48%

The highest decline is noted in the category Kol (97.78%), presumably because in 1971 census the enumerators included the so called 'Kol' under the category Kolha which has registered the highest growth during the decade. The next highest decline is observed among the Chenchu (84.62%) and among the Bogota (82.66%) which may be explained by large scale migration to the adjacent States where their compatriots live.

All the above statements, statistics and the tables suffer from the general problem of confusion in ethnic categories.

Composition of the Tribal Population:

We have tried to present a comparative picture of the Scheduled Tribe population as per 1961 and 1971 censuses under various categories.

Rural-Urban contrasts :

Whereas in the total population of Orissa only 6.32% were urban residents in 1961 census and only 8.41% were urbanites in 1971 census,

the urban population of the scheduled tribes in 1961 was barely 2.07% and in 1971 barely 2.91% Even if it is not safe to generalize on the percentage of growth of the decade (19 61-71) the scheduled tribes tend to urbanize more (68.31%) than the general trend in the State 66.30%

Age-Sex and Marital Status Distribution:

Whereas for the whole State there were 1001 females per 1000 males in 1961, it came down to 988 females per 1000 male in 1971. The same downward trend in the sex ratio, though well above 1000 was observed among the Scheduled tribes. Whereas in 1971 there were 1007 females per 1000 males, table-3.

Table-3 : Sex ratio of Scheduled Tribe & the total population of the state, 1961-71

Population		**1961**			**1971**	
Category	Total	Rural	Urban	Total	Rural	Urban
Tribal	1061	1018	942	1007	1009	957
Total	1001	1015	807	988	1002	845

If we group the scheduled tribe population in 3 age-groups, children up to 14 years, adults from 15 to 44 and elders beyond 45 years and compare them with similar age-group of the total population among males and females, we find the picture presented in table-4.

Table - 4 :Percentage distribution of Scheduled Tribes & Total Population by age group and sex,1961-71.

Census	**Population**	**Male**			**Female**		
Year	Category	0-14	15-44	45+	0-14	15-44	45+
1961	Tribal	39.47	45.91	14.63	38.89	45.45	15.66
	Total	(39.30)	(44.00)	(16.69)	(38.83)	(44.05)	(17.12)
1971	Tribal	43.53	41.75	14.72	43.13	42.12	14.74
	Total	(40.17)	(41.18)	(18.65)	(41.80)	(41.48)	(16.72)

The table reveals that during the last decade the proportion of the children among scheduled tribes have increased more in case of males and females of the scheduled tribes. But the proportion of the tribal adults has decreased among both males and females. But in the age-

group of elders the males have registered a slight increase in 1971 over 1961 whereas the females have gone down in proportion in the same age-group among the scheduled tribes . However, both in 1961 and 1971 more females survived than the males in the age -group of elders.

When we compare the age-group distribution in the total population of Orissa we find broad similarities with a few significant variations. In the "0-14" year group of the total population we do not find basic differences between the tribal and non- tribal categories among males in 1961. But in 1971 the general population has only 40.17% in this age-group as against 43.53% among the tribals. Even through there is no broad divergent in the percentage of adults in both 1961 and 71 censuses, there is a wide discrepancy in the elders claim 16.69% of the total population the tribal have only 14.63% in this category among males in 1961. Similarly, the tribal percentage among the male elders is 14.72 against 18.65% of the total population in this category in 1971 census. Again, among the females more or less the same pattern is repeated when comparing the total population with the tribal population. Again, in the age-group elders of 45+ we find 17.12% of the women of the total population against 15.66% of the tribal population in 1961 census. The tribal females were counted 14.74% in the age-group of elders against 16.72% of the females of the total population in the same age-group. The general conclusion is that the elderly tribal men and women do not appear to have as long life as the elders in the general population have .

If you examine the Table-5,you will find greater proportion (54.10%) in 1971 remained "never married" compared to 1961 (49.40%) among the tribal males. Similar increase of "never married" occurs among the tribal females as between 1971 (47.65%) and 1961 (42.85%) through the proportion of "never married" is always higher among the males than among the females as. We find a great discrepancy between the widowed tribal males and widowed females ,whether in1961 or 1971. The properties and the distance remain almost same, reflecting a stable general trend. Whereas the tribal males are widowed at level of 2.82% in 1961 or 2.51% in 1971, the tribal females are widowed 9.42% in 1961 and 8.74% in 1971.The decline in percentage remaining constant over the decade among both males and females .Perhaps more widowers are fortunate to secure partners than the widows among the tribal people . When we analyze the proportion of "never married" tribal males and

females through the three age groups of children, adult, elders as given in Table-6 and compare them with the situation in the total population at time of 1961 and 1971 censuses we find following :

Table - 5 :Distribution of sex and marital status for Scheduled Tribues,1961-71.

Census		Male				Female		
Year	UM	CM	W	D/S	UM	CM	W	D/S
1961	49.40	47.29	2.82	0.49	42.85	47.18	9.42	0.55
1971	54.10	42.86	2.51	0.48	47.65	43.09	8.74	0.48

(UM-Unmarried, CM-Currently Married, W-Widowed, D/S- Divorced / Separated)

Table-6 : Comparative proportion of never married Scheduled tribes by age group and sex, 1961-71

		0-14		15-44		45+	
Year	Sex	Tribal Popln.	Total Popul.	Tribal Popn.	Total Popn.	Tribal Popn.	Total Popn.
1961	M	99.22	98.99	21.99	26.43	0.83	1.30
	F	98.27	97.38	09.99	07.35	0.50	0.63
1971	M	99.87	...	25.14	....	0.88	...
	F	99.94	....	11.05	...	0.49	....

Consistent with the table-5 showing the increase in "never marriedgroup we find in 1971 more males (99.87%) and even more females (99.49%) remained unmarred in the age -group up to 14 years compared to 1961. Similarly, both more males and more females remained unmarried among the adults in 1961, whereas the position among the elders remaining unmarried maintain almost the same level between 1961 and 1971 .

When we compare the tribal data with the statistics from the total population in 1961 (1971 data not available), we find that less percentage of the non-tribal population remain unmarred in the children age-group among both boys and girls. But among the adults we find a divergence between the men and women. Whereas more men in the total population (26.43%) remain unmarred against 21.99% of the tribal

men, less women (7.35%) of the total population as against 9.99% tribal women remain unmarried. Again, in the age group of elders a little higher percentage of both men and women of total population remain unmarried when compared with tribal people

Language and education:

The following tribes speak of tribal language other than any of the regional languages recognized in the constitution and 50% or more of the total population speaks the tribal languages according to 1961 census. The tribes are the Bhumija, Gadaba, Ho, Jatapu, Juang, Kharia, Koya, Mahali, Paroja and the Santal.

The Policy implication of this demographic fact are that because of their isolation from the regional language in Orissa they cannot take advantage of the schools and other institutions carried out in medium of the prevalent regional language in Orissa . But it is significant that 422,350 males and 352,389 females among the tribal people have Oriya speaking abilities whereas, telugu is spoken by 24,580 males and 24,738 females among the scheduled tribes. 24,669 males and 11,237 females among the tribal population of Orissa can speak Hindi and only 1,499 tribal males and 809 tribal females can speak Bengali in addition to their mother-languages. It is interesting to note that English is spoken by 3,832 tribal males. It is obvious that for the habitually bilingual tribal speaking Oriya or Telegu or Hindi languages there exists no special difficulties in pursuing higher education in these regional languages.

Although, it would have been meaningful to assess the progress of education achieved by the tribal people of Orissa from 1951 to 2972, unfortunately the census data for each tribe in 1951 are not available and the 1971 data are not vet published. Only in the 1961 census published documents we find the distribution for each tribe in different levels of education, general or professional. Even the 1951 census data are not available for the literacy rate of the tribes. Therefore, we are constrained to use only the literacy levels from 1941 and 1951 where available to 1971. In 1951 the total population had an average literacy rate of 15.80% whereas the scheduled Tribe population had only 1.5% literacy in 1941, which could not have drastically changed by 1951. In 1961 the tribal people achieved 7.1% literacy against the total populations 21.66%. In 1971 census the tribal literacy was 9.23% in the average and the total population had achieved the literacy rate 24.09%. Therefore,

we may easily, conclude that the tribal population achieved a much higher rate of progress in literacy between 1951 and 1971 than the total population of Orissa is general. However, there has been a jump between 1961 and 1971, as because the Govt. programmes after independence to accelerate the educational growth must have borne significant fruits. Obviously, the tribal education has progressed at a faster pace than the education for the general population. However, if the average literacy of the whole tribal population grows by 27.94% during 1961-71 decade as against the general literacy growth of 20.87%, the tribal men folk having only 10.41% literacy growth in the same decade. Interestingly however, the females of the general population scored much higher rate of growth in literacy (60.92%) than their tribal counterparts (45.76%) in 1961-71 decade. For details, please see table-7

Table -7 : Literacy level among the Scheduled Tribes and the state, 1961-71.

Population		1961			1971		Total	Growth
Category	Sex	Rural	Urban	Total	Rural	Urban	Total	61-71
Tribal	T	07.25	13.81	09.48	09.23	17.98	07.10	27.94
Popul.	M	12.87	20.79	16.38	16.07	26.58	13.04	25.61
	F	01.67	06.83	02.58	02.38	09.39	01.77	45.76
Total	T	20.14	44.16	26.18	24.09	49.00	21.66	20.87
Popul	M	32.96	57.54	38.29	36.14	59.94	34.68	10.41
	F	07.52	27.58	13.92	12.06	36.05	08.65	60.92

However, there is a distressing trend in the differential literacy rates among the Scheduled Tribe of Orissa. The range of Variation in 1961 census among the 62 tribes was between 1.5% literacy of the Parenga and 19.9% of the Kherwar. In 1971 census the range of variation is even wider, between 0.8% of the Didayi to 32.5% of the Kuli. When we take the inter-census progress in literacy into account, we find 13 tribes out 62 having registered a decline in literacy .This declining is not a marginal one. For, in some cases the decline has gone up to 8.3% which is quite unexpected in the context of all the development efforts of about three decades in the field of education. The administrators and

the policymakers may have to sit up and look closely in to the genesis of this unhealthy situation

Tribal manpower:

That the tribal men and women work in greater number is amply proved on basis of the census data of 1961 and 1971 presented in table -8

Table -8 : Participation rate among the scheduled tribes and the state,1961-71.

Population		1961			1971		
Category	**Sex**	**Total**	**Rural**	**Urban**	**Total**	**Rural**	**Urban**
Tribal	Male	63.66	63.75	59.25	58.89	58.99	55.33
Population	Femal	44.13	44.29	36.08	10.97	10.87	15.64
Total	Male	60.70	60.09	70.87	55.32	55.79	50.63
Population	Femal	26.60	27.81	10.59	06.81	06.83	06.56

The tribal women do not purdah and do not shy away even hard work under the hot sun . Even when the basis of classification of workers among women in 1971 census was changed, the same position of the tribal women working in greater numbers than other remained. As expected, cultivators and agricultural laborers together constituted the overwhelming majority (89.10%) of all the Scheduled Tribe worker of 1971. But in 1961 the cultivators and agricultural labors together had constituted only 83.72% of the total Scheduled Tribe workers. The increase in dependence upon cultivation and allied occupation of agricultural labor has been explained by the census authorizes, Orissa as due to the efforts of the Govt, in giving the Scheduled Tribe more and more agricultural land over the past two decades .This may very well be true when we compare with the relative proportion of cultivators and agricultural laborer's of the Scheduled tribe With that of the Scheduled castes of 1971, we find about laborer's 50% (49.21) of the Scheduled caste work as agricultural whereas and slightly above 50% (52.38%) of the tribesmen work as cultivators, as expected in Orissa's context. The Scheduled caste of Orissa known for their commercial acumen account for 1.63% of the total workers in trade4 and commerce in

1971, whereas, the tribes' men could place only 0.58% of their workers in these occupations .But compared to 1961 even the tribesmen have made some progress in the field of trade and commerce which claimed only 0.38% of the tribal workers then. IN mining quarrying, which are carried on right in the midst of tribal territories, the tribal workers have placed 1.07% of themselves in 1961 in these occupations, whereas in 1971 their participation in them rose to 1.32%.

Religious divisions :

When we compare the 1961 with 1971 census statistics, we find a little decline in the proportion of Hindus among the tribesmen from 97.49% in 1961 to 93.87% in 1971 .On the other hand: the Christians among the tribal people have gained the strength from 2.57% in 1961 to 4.31% in 1971. The revived tribal religion of "Sarna Dharma" accounted for 0.04% of the tribesmen in 1961 belonging to the Santal Tribe in Mayurbhanj district .In 1971 the "Sarna Dharam" is subsumed under the category "other religious, persuasions or beliefs" , claiming altogether 1.81% of all tribesmen.

This only confirms that there are lots of continuities and strong bonds between the tribal population and their non- tribal brethren in Orissa.

Family and kinship in Tribal Society:

In Orissa, irrespective of whether they speak Oriya, Dravidian, Kui and Kuvi, Gondi, Koya, Kurakh or Mundari language like Juanj, Munda, Ho, Santali, Saora, Gadaba or Bonda. All tribal groups follow patrilineal descant in their kinship system. For all of them, the family is the basic social unit in villages. Overwhelmingly the live in nuclear families and brothers live separately after marriage. Yet there are the Saura, who have predilection to live in extended families as distinct from their western neighbors, the Kondh. More usually some of the brothers go on living together, among many tribes, during the life-time of one of the parents. In an economy of hunting and food-gathering of the Birhor or the Kharia of North Orissa, perhaps the scarce resources do not encourage the long survival of the older people. A hard-working married couple with a small family can barely make both ends meet. In shifting cultivation economy, the resources

are still not plenty and we find the village youth or village elders coming to the help of a lone widow or inferior man , making some arrangements for the cultivation of swidden or a plot of shifting cultivation, on her/his behalf. This is nothing but an informal village social security system. Though largely depending on shifting cultivation. The Saura have in many villages extensive terrace agriculture. Terracing is an arduous labor-intensive and time-taking job, conferring individual rights in the terrace plots. This might have been the most potent motivation to keep the brothers together long enough to from the Saura tradition of living in extended family. However, it must have been, Munda, Oraon, Kisan, Gond and Ho to live normally in small, nuclear families.

Only a few tribes like the Bhuiyan and the Saora, who have lineages as patrilineal descent group to mobilize action in times of need, and to form exogamous group of sentimental bonds. But almost all the other tribal groups to mobilize action in times of need, and to form exogamous groups of sentimental bonds. But almost all the other tribal group have clans, organized on the basis of decent from a mythical ancestor. The Birhor can name even the place of origin of their clans, and periodically hold some rituals. The Kondh are famous for their clan-territories. Later on, the Muttha system in Kondhmal was a political superstructure imposed on this kinship basis. Therefore, we find a Kondh cannot marry not only within his clan, but also within the Muttha to which he originally belonged and which was predominated, if not exclusively inhabited by his clan, even lineage territories as among the Saora, these kin-group functioned as corporate groups.

Village and Higher Society:

All the tribal group were living in villages with a village council of elders wielding traditional authority and enforcing law and order within the village Most of them had the character of what is known as "Segmentary" societies. All clans or lineages were equal. Only one clan, or lineage, usually that of the first founders, held the posts of village priest and village headman, and had a major say often because of their larger numbers. As population expanded there might be colonies of the mother-village in nearby areas, or even migrations of people to

other areas as the Munda, Oraon and a few others have done in recent decades. Further, as mining and quarrying activities spread in tribal areas, shifting cultivating or food. Gathering tribes were displaced. They had to take shelter in other areas, where their traditional economy was not threatened and where they had their kinsmen. In other cases, the Hindu feudal elements, with superior organization and arms, had penetrated into the hills and reduced some tribal group into a subordinate status. In various ways, inequality in power and status sometimes also inequality in control over the scarce resources developed, transforming the nature of these segmentary societies of tribes.

A few tribes like the Santal, Ho, Munda and Oraon had organized even inter-village democratic councils to look after their common interests and to present a common front against the outside organized political or armed force of the invading kingdoms or empires. The Gond had even pone father, The Gond and their allied brethren, Binjhal, held small princedoms and feudal estates in Western Orissa, perhaps on the model of Hindu and Muslim kingdoms. The tribal aristocrats formed a ruling elite and other were their subjects. Their society was composed of hierarchically graded groups often with specialized functions, almost as in a caste form a segmentary society reached a point of no return and became a different kind of society , much larger in scale, no longer isolated from the outside world and kinship bonds were subordinate to royal or feudal service. But with an encompassing society of the Hindu princes and the local people. We find ritual kinship bonds with the local Hindu people and many tribal groups accepted as equal or higher in status to some local Hindu castes. The Bhuiyan and the Bathudi are those form whom even the Brahmins take drinking water, though they in turn do not acknowledge the Brahmin supremacy by accepting food form the Brahmin as lower Hindu castes do.

When all these facts are taken into account, we are not surprised to find that instead of alienation and conflicts as in North-Eastern region of India between the tribesmen and others, we have in Orissa a lot of fellow felling and mutual respect between them. Every Hindu in Orissa is conscious of the supreme fact that Lord Jaganath is a Savara deity and so is Lord Lingaraaj, the two most eminent Gods in Orissa. Many Hindu Princes claimed or were known to be derived from tribal

ancestry. And overwhelming majority of the tribesmen are Hindus, as per 1971 census.

Tribal Youth and Tribal Elite :

There are certain features of tribal society in Orissa which should be emphasized in the interest of their development. All the national leaders want to harness the youth power for the national development. Yet the tribal youth in many tribal societies, have achieved a level of organization and motivation, which should be further whetted in the interest of the village or micro-regional development. Most of us know about the village youth dormitories of the Kondh, Ho, Bhuiyan, Bonda and Juang and of a few other tribes. These were the informal yet co-ordinated village watch and word, social service squads and cultural troupes.

The young men and young woman who are in high school and colleges, in factories or mines, may not be looked upon with pride always by the tribal groups. But they know that they hold the keys to the future of the tribal group. Many of these younger men, imbibed with a spirit of reform and reconstruction, have organized tribal solidarity movements, tribal cultural organizations or social mobility movements focusing on their own tribe or allied tribes, if this section of the tribal elite and the tribal youth on general attract the understanding and sympathy, also a little resource-support from the wider public and the Government, the brighter days for our benighted tribal brethren may not be far away. The brighter youth from among them may be given special orientation and training to assume leadership of the village youth and to act as rural innovators. The tribal youth in one area, belonging to one tribe, may be given facilities to travel to other tribal and developed areas to see and learn others. For example tribal youth from the shifting cultivation economies may visit the Ganjam and Koraput hill saoras and learn from them how they can make terraces, grow luscious oranges and bananas, and even engage in some trade and commerce. Or they can visit Kisan, Munda and Oraon or Kurmi villages or North Orissa to find out for themselves how agriculture can be improved and made profitable.

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3. SOCIAL IMPORTANCE OF RITUAL KINSHIP IN THE "GODABA" SOCIETY IN KORAPUT DISTRICT OF ORISSA

Ritual kinship as the term indicate is a distinguish type of kinship organization in which unrelated individuals out of spiritual as well as emotional attachment and often due to social obligation enter into a kind of relationship, like that of a kinship system, and is followed by some sort of ritual performances . It includes all the relationship such as God parents, God-children, God brother and last but not the least the bond-friendship or what is known as ceremonial friendship (Sangat, Maitra, Makara, Baula etc). The social experiment of such relationship is much valued among the tribal societies. In the present paper an attempt has been made to evaluate the social importance of Ritual kinship among the Godaba society.

The Godabas constitute one of the primitive tribes of Orissa. They are mainly concentrated in Koraput District. According to 1971 Census they totaled up to 46,594 showing decadal growth rate 7.6%. They have their own traditional social structure by which they are distinguish from the other tribal groups and constitute a separate entity. Without going deep into their social structure, the aim is to remain confined within the limits of the objective of the paper.

The following different type of relationship, which comes under ritual kinship, is observed among the Godabas.

1. Maitra
2. Mahaprasad relationship
3. Charu Bhai
4. Panjia Bhai
5. Babu relationship
6. Baula
7. God children and God parents

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Maitar relationship:

This is a relationship between two male individuals irrespective of their clan,tribe and village.The relationship is not confined within the two maitars,their respective families are also attached by this tie.Once such a relationship is established it continues for a long time even for a few generations.

Such maitar relationship arise due to spiritual as well as emotional attachment.When the closeness of two individuals develop they might think of establishing the relationship but they cannot do it without the consent of their respective parents (in the absence of parents the guardians consent is required).If any of the parents disagree with the proposal then the maitar relationshp cannot be establishd ritually.It does not mean that there will be a split between the two friends.On the other hand, when the proposal is approved by all, the maitar relationship is established with a ritual performance. After that ceremony both the individuals adress themselves as 'Maitar'. The wife of Maitar is adressed as 'Mitai'.Younger ones are called by their respective names and the elders are addresed by the respective terms as the case may be like that of the kinship terminology.

Maitars are invited to all the festive occasions a Dassa and marriage ceremonies etc. At the time of Dassa the invited members as well as the relative attend a common feast after which all the intrested individual practicipate in a dance ,locally known as Demsa .This continues throughout the night .At the time of marriage ceremonies the maitars and their familly members are not allowed to render any sort of physical help as they are the invited guest. But they help finacially and materially according to their own ability and standard .With all kinds of reciprocity the relationship continues for an uncertain period.Maitar relatinship does not have any specific importance in the Gadaba Society. It just unites two different families and extend the inter -family relationship giving rise to some new Kin-members,which neither come under consanguineal kins nor affinal kins,but categorised as ritual kins.

Mahaprasad Relationship:

It is the relationship between two different clans of two different village. Such a relationship develops due to co-operation and friendly attachment of the respective villages. As the name implis the establishment of the Mahaprasad relationship is followed by a ritual performance in which 'Mahaprasad' (Worshipped food) is exchanged . When the villagers of a particular village (belonging to one clan) unanimously decide to establish Mahaprasad relationship with the members of their desired village (belonging to a separate clan) they have to send some elderly persons to put the proposal before the members of the latter village . Generally the proposal is accepted and a date is fixed to perform the ritual. On the proposed day some selected members forms both the villages meet together near the 'Sadar' (an open place where the village God has been installed) and then the ceremony takes its start. At the beginning , both the parties wear new clothes (Dhoti) then they take Mahaprasad in their hands and put it in one another's mouth . After the ceremony is over they greet one another by uttering the following words .('We all remain like a maiters as longs as earth is there). It is followed by drinks and smoking. From that day they become Mahaprasad relatives and address one another as 'Maitar'.

Mahaprasad relationship maintains peace among the people of different clans and even between two different village . No Godaba speak any nonsense against his 'Mahaprasad' people . Mahaprasad relatives have their role in different ceremonies such as birth,marriage,death and other festivals. They greet one another by folding hands. In Gotar ceremony Mahaprasad relatives present either a buffalo or a goat to the party who performes suchs ceremony.

At the time of communal hunting the Mahprasad relatives are informed to participate . Such co-operation and mutual understanding facililate the social interaction between the two villages . Hence in an organized way the Mahaprasad relationship brings unity between village and helps in the extension of its socio-economic relations.

Charubhai Relationship:

Such relationship is establish between two different lineage groups of different villages of the same clan. All the duties and the

obligation are confined within the clan. Because within each clan such relationship is a must. However, the presence of Charubhai is highly appreciated in the Gadaba society . The social importance of this relationship is definite and precise .

In Gadaba society if anybody dies in a family , the member of that particular family are not allowed to touch any other person of that village or any other village. At the same time nobody takes any sort of foods from that particular family. They are not allowed even to consume water from a common pool or well . In such case , the charubhai who remains in another village comes to the rescue of that restricted family. The duty of the charubhai is to prepare food for the members of that restricted family without any sort of help from the family members till they are purified and their previous status is re-established.

Beside death when any members of a family is involved in any antisocial work or any disgraceful deed all the members of that family are subject to punishment as per social rule. Again by the help of the Charubhai in the similar manner their position is re-established in the society. After finishing all the required duties, the Charubhai returns to his village and at the time of returing he receives 'Malin' (Dana).

The term 'Charubhai' is never used as a term of address. The regular kinship terminology is generally referred among the Charubhai relatives. Matrimional relationship Cannot develop between these two households. This is a tradition relationship and continues over generations.

Panjia Bhai Relationship:

This Panjia Bhai relationship is commonly noticed between the clans. The distinguished feature of this type of relationship is that the members of the two parties or groups belong to, two different clans whereas in case of pervious type (Charubhai) the relationship is established within a clan. The Panjia Bhai plays a significant role in the 'Gotar' ceremony.

At the time of Gotar ceremony the host party (clan who perform the ceremony) receives buffalos from the other clan relatives (such as Mahaprasad relatives and Panjia Bhai relatives) as a tradition of their society. Such buffalos (Locally known as Podho) which are used in the Gotar ceremony are termed as 'Gotar Podho'. The

members of the host party are not supposed to take the meat of the Gotar Padho. As the tradition of the society the Gotor Pdho are offered by Panjia Bhai. Then it became the responsibility of the members of the Panjia Bhai to share the Gotor Podhos among themselves. Sometimes they kill one of the those and distribute some meat among themselves and sell the rest. At times the number of Gotar Podho may be one only. This is the only significant role of the Panjias Bhai in gadaba society. Inspite of the limited importance the Panjia Bhai commands a respectable position in their society.

This traditional relationship has been continuing for generations. Hence the present generation is unable to describe the procedure of establishing such relationship.

Babu Relationship:

This is an interesting relationship among the Gadaba which is established between two sexes-it is a bisexual relationship ; such a relationship is generally established between un-married boys and girls. Sometimes married and divorced men are also allowed to establish Babu relationship. 'Babu' is the term of address which both the individuals utter each other.

There is no restriction, in the regard to village, clan or even tribe, for establishing. But the only restriction is that Babu relationship cannot be established within the same clan members. A group of boys can also establish Babu relationship with a group of girls. Sometimes a brother of particular family establishes Babu relations with similar numbers of sisters of another household of a different clan. Furthermore, an individual can have more than one Baby relatives at a time.

Marriage is quite possible between the two Babu relatives provided both of them agree. When somebody has more than one Babu relatives title complexity arises for marriages. But generally, the most closely attached individual marry each other. Nobody creates any trouble in such a marriage if bride price is perfectly paid to the bride's parents.

The process of establishing Babu relationship is quite interesting and has been summarized below. At first the young man takes initiative to have such a relation. If at all he knows the girl the girl with whom he

wants to establish relationships then he has to wait for a weekly market or a hata day initiate for the formal part of the process. When the particular day comes and if he finds the girl in the market, he snatches the towel of the girl and returns the same with some sweets and cosmetics tied in it either on the same day or on the next market day. If the girl accepts the offer, she takes it to her house and disclose the matter in front of her friends and parents. If nobody in the family opposes the matter then on the next market day the girl greets the boy with 'pan' and 'Bidi' (betel and smoke). Thus, after the formal reciprocity is over they disclose their hearts to each other and become the Babu relatives. Another ay of establishing the relation is through a mediator. In case a boy or a young man wants to have such a relation with an unknown girl he has to find out a person (generally a lady) who must be knowing the whereabouts of the girl. He then makes everything clear to that person who acts as a mediator. It is then the responsibility of the mediator to approach the girl regarding the matter. If the girl agrees to the proposal she comes and greets the boy with 'pan' and 'Bidi' and receives the same from the boy. Thus, the desired relationship is established. In the similar way a group of boys establish the Babu relationship with another group.

This is how in the Gadaba society this relationship is established, but it does not last for a long period as in case of sangat and Maitra relationship. In normal condition the Babu relationship continues till the marriage of either of the two relatives. Therefore 'Babu' relationship is mostly found among the unmarried young men and women. Such relationship has yet to play any significant role in the Gadaba society but it definitely gives a status to the Women in the society for searching out their life partners

Baula Relationship:

This is mono sexual relationship found among the females. Two girls of the same age group and mostly of the same village established Baula relationship by offering 'Baula' (flower of the mango tree) to each other. Such Baula relationship is very rare in the Gadaba society. The contributor could not come across any such type of relationship by his informants.

God parents and God children:

Commonly God children refers to the adopted sons and daughters. In Godaba society such adoption of children is prevalent but with certain limitations i.e while adopting the children, clan factor is taken very much into account . In other words, children outside the clan are not adopted Couples without having children outside the clan are not adopted are certain preferences in case of adoption. Generally, people prefer to adopt the son as there is a patriarchal and patrilineal society. Son of the elder brother is given first preferences. If failed to do so the second preferences are given to the son of the younger brother. If in any case good relationship is not noticed among the brothers then the adoption may be made anywhere else but within the same lineage and clan. In case for certain reasons, the adoptions have taken place even at an old age of the couples, the person who take care and ;look after the old couples has every change to get all the property after the death of both the compels . Of Couse before the death the ownership of the property has to be transferred to the name of the caretaker pf the person concerned in a traditional way. The new owner can sell the property without any difficulty, if he so likes. Here property generally indicates immoveable property such as land, house etc.

In the Gadaba society the adoption of children is prevalent even today. God parents and God children are widely noticed in other caste and societies and its social importance is quite known to everybody. In the similar way the God parents and God children have their own social importance in Godabas society. First of all, the importance of a son is felt at the old age when the constant care is required to the old couples. The problem of ancestral worship arises in the absence of a son. Last bit not the least, the problem cult provides certain impetus to the system of adoption. Thus, adoption has become the tradition of the society and has come within the scope of ritual kinship.

GLOSSARY

1. **Clan :** It is the biggest unilineal, exogamous and corporate descent group the members of which are recognized by a common symbol that may be an animate or inanimate object.

2. **'Dassa' :** It is a funeral ceremony and is performed on the 10th day after the death of an individuals. On this occasion a feast

is arranged. Both men and women gather at a common place of the village and enjoy themselves after the formal drinking and the feast.

3. **' Demsa' :** This is a distinguished type of folk dance of the gadabas where both male and female participate jointly. The dance takes the start about 9-10 P.M. after the noght meal and continues till morning. In almost all the ceremonies this dance is perfomed.

4. **Drinks and smokes:** Drinkes and smokes are locally prepared. There are mainly two types of drinks i.e. 'Pendam' and 'Salap' is prepared out of rice and millets and the 'Salap' is collected from a tree, it is the juice of the tree. So far as smokes are concerned the plain tobacco leaves are roiled and consumed as 'Cigar'.

5. **'Gotar':** It is also a special Kind of funeral ceremony but not of a particular individual. Such ceremony is performed together by different households for a number of ancestors. The ceremony does not have a particular date. When the financial condition of the peoples is fovourable they perform it. It is generally performed in the harvesting season and after the completion of harvesting. This ceremony is accepted as the last one ancestor for whom it is organized. In other words, no further ceremony is performed for the same ancestors after 'Gotar' ceremony is over . In this ceremony a number of buffalos are killed (sometimes one) which are offered by 'Janjia Bhai' The process in which the buffalo are killed is really fearful. A huge gathering takes place, people of distant villages come to see the ceremony with anxities.

6. **Lineage:** It is a unilineal kinship group larger than the family that traces its descent from a commonly known ancestor.

7. **'Muali' :** It is a type of gift. Generally, Charubhai receives such gifts while returning his own village after performing his prescribed duties. Money, a piece of gold or silver are commonly offered as 'Muali'.

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4. DEMOGRAPHY OF A JUANG VILLAGE

Juangs constitute one of the aboriginal Scheduled Tribes of Orissa. They count 24,384 in number according to 1971 census. They are widely distributed in Kendujhar and Dhenkanal districts of Orissa. The Juang society is patrilocal and patriarchal. Immediately after marriage the son is separated from the family of orientation and well known due to their shifting cultivation. They specially produce paddy, sesame and millet. Among these, sesame is considered as their cash crop.

Juangs are an endogamous tribe and they strictly follow this rule. But each village is mostly an exogamous unit as they belong to the same clan. Each village is situated beside a stream which is their main source of water as they do not generally have any well. The houses are uniformly constructed but not arranged in row kitchen gardens are attached to some houses.

So far as their morphological features are concerned, they are medium statured people, complexion varies between brown to dark-brown medium hair on face and body, medium nose and eye fold is not present.

The village:

The present village Panasanasaa is completely inhabited by the Juangs and is situated nearly 25 kilometers south of Kendujhar town, a district headquarters of Orissa. It is located on the eastern side of the ghat road that links Kenujhar town and Telkoi. The village is subdivided into two hamlets the lower and the upper hamlet. The upper hamlet is on the top of a mountain range which maintains a distance of about 2.5 kilometers from the lower one and it takes nearly 40 minutes to climb up the hills to reach the upper hamlet from the foot hills. The lower hamlet came into being on a later date after half of the households left

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the so-called upper hamlet due to the practical difficulties like scarcity of water, food and communication however the two hamlets constitute one revenue village.

Trees like mango, jackfruit neem, sal and kendu besides other

with jungle plants are found in abundance in both the hamlets wild animals like leopard, elephant, bear, deer, wolve fox and a good variety of snakes are commonly seen by the villagers. Cat, dog, goat, sheep, pig and the cattle are being the pet ones mostly found in and around the village. Cattle sheds and goat pens are attached to the houses and sometimes goats are kept inside the houses.

All the houses have thatched roofs (However a portion of the chief's house is tiled) each house has one room and is separated in two part, one of which serves as the bed room where they also cook and the other part is used for storing grains, dining and also serves for various other purposes. Except one door in the front there are no other openings in the house, not even a window. However, every house has a verandah in the house, not even a window. However, every house has a verandah in the front side where they casually sit, lie down and keep other household materials. It is interesting to note that the houses in both hamlets are found in scatter clusters. The youth dormitory of the lower hamlet is located almost in the centre and in the upper hamlet it is situated at the beginning of the hamlet. The village deities are placed near the respective dormitories.

Population structure:

The total tribal population of the village Panasanasa found to be 305 as on 30-11-1974 out of this, 146 are males and the remaining 159 are females. There are on the whole, 85 households. But according to the survey of the tribal & Rural Welfare Department of Orissa the total population of this village however, was 297 in 1973. The age comparison of male and female, sex ratio and percentage of population in different age groups are presented in Table-1

Table -1 : Distribution of population by age and sex of Panasanasa

Age Group	Male	%	Female	%	Total	%	Female per 1000 male
00-04	22	15.1%	20	12.6%	42	13.7%	909
05-09	23	15.8%	26	16.3%	49	16.1%	1130
10-14	20	13.7%	21	13.2%	41	13.5%	955
15-19	18	12.2%	12	07.6%	30	09.8%	666
20-24	08	05.5%	15	09.4%	23	07.6%	1875
25-29	14	09.6%	17	10.7%	31	10.2%	1214
30-34	12	08.2%	13	08.2%	25	08.2%	1085
35-39	15	10.3%	14	08.8%	29	09.5%	934
40-44	05	03.4%	06	03.9%	11	03.6%	1200
45-49	05	03.4%	02	01.3%	07	02.3%	400
50-54	01	00.7%	05	03.1%	06	02.0%	5000
60-64	00	00	05	03.1%	05	01.6%	1500
65+	01	00.7%	00	00	01	00.3%	0000
Total	146	(100)	159	(!00)	305	(!00)	1089

(Average age M-20.6,F-22.4,Total-21.5years)

The table shows that in the age group of 10-14 there is sudden decrease of population among both the sexes. It is also noticed that there is a sudden decrease in the age group of 40-44 in both the sexes, the decrease is also marked in the age group of 15-19 in case of females and in the age group of 20-24 in case of males. The decrease in the case of females is surely due to the change of household after marriage. Similarly, the decrease in the case of males in the group of 20-24 is due to migration. Again, from such age groups people are more expose to the outer world and hence accidents are obvious which may cause death and finally the decrease in population is noticed .But the decrease in the age group of 40-44 is due to death. Though it is not age to become old, the scarcity of food badly affects them and they starve to die at an early age.

It is also observed from the table that in the age group of 10-14, 20-24,25-29,30-34,40-44,50-54,55-59 and 60-64 the proportion of female is greater than male. In no case proportion is equal. Only in few case the male proportion is more. In the total population the sex ratio is 1089 females per 1000 males.

The total life span of the Juangs has been divided into five periods for the sake of convenience. These are:

i. Infant(below 1 year)

ii. Child(1-9 years)

iii. Adolescent(10-19 years)

iv. Youth (20-39 Years)

v. Aged(40 years and above)

The percentage of female is less proportion to the male in the first three stages (infant, childhood and adolescent).But in the last two stages (adulthood and aged).the percentage of female is greater than that of the male. So far as the total population is concerned the number of females is more. This suggests the greater longevity of the women.

The possible cause of female preponderance is that the females are biologically stronger. They are also less exposed to the outer world. It is a fact that those who are more exposed to the outer world face accidents in a large number and are also affected by dangerous contaminous diseases which consequently lead to death. Hence, the numerical strength is affected.

The table also showed that nearly half of the population is below 15 years of age which shows that a half of the population is economically unproductive. Again, from the other half of the population the number of females is more which is the chief contributor to the economic backwardness of the village.

Literacy and Occupation:

The degree of the educational achievement is related to reproduction, family sizes, economic status and various indices of cultural wellbeing. In general, the tribal people of India are far away

from the track of education. In other words, they are educationally backward than the people of other castes. It indirectly affects their economic condition. In the 1961 Census the overall percentage of literacy for whole state is 14.% as against 21.7% in 1971 Census. In case of the tribal people, the corresponding figures were 7.1% and 9.2% respectively.

Table - 2 : Distribution of Literacy among the Males

Age group	L.P contd.	U.P	M.E	High School	No-formal educational	Total
05-09	12	0	0	0	0	12
10-14	04	0	0	0	0	4
15-19	00	1	1	0	0	2
20-24	00	0	0	0	1	1
25-29	00	0	0	0	0	0
30-34	00	0	0	0	1	1
35-39	00	0	0	0	4	4
40-44	00	0	0	0	0	0
45-49	00	0	0	0	0	0
50+	00	0	0	0	1	1
Total	16	1	1	0	7	25

(Total literate 8.3% and 100% females are illiterate)

As regards the literacy of the village is concerned it is found only 25 males out of 305 individuals are literate. Out of those 25 people 7 individuals have not attended any educational institution. Only one person is educated up to middle school and is serving as a peon in Telkoi (Bock Head Office). No female is educated, i.e.,100% females are illiterate. Only population(305) are literate, which is very low in comparison to the tribes of NEFA. According to Dr.U.Deka, who has made a demographic survey in a Khasi village, the literacy percentage of that village stands at 45%.Hence, the Juang of Panasnasaa are

educationally very backward to meet their necessities. What is more unfortunate is that out of the 23 boys in the age group of 5-9, only 12 are attending school. In the next higher age group, 10-14, only 4 out of 20 boys are reading in the lower primary classes which are still more disturbing.

Bilingualism :

Most of the male are bilingual. They talk amongst themselves in their own language, that is the Juang language, but while talking with outsiders they use odiya. This bilingualism helps them to have contact with the outer world and to exchange their ideas with the outsiders. In India bilingualism among the tribal population is about 10%. Very few females of the village are bilingual.

Occupation :

It is interesting to see that children by 10 years start helping their parents by active participation in various works. However, by the age of 50 years Juangs become old and are not sufficiently capable to carry out hard work. In view of this, population between 10 to 49 years are considered to be economic active in the present study instead of 15 to 59 years

Table - 3 : Distribution of Population by occupation pattern

Occupational	Primary		Secondary	
Category	Male	Female	Male	Female
Cultivation	66	37	03	00
Wage earner	03	05	02	00
Collecting	24	58	64	42
Runner (in Postal dept.)	03	00	00	00
Peon	01	00	00	00
Unemployed	00	00	28	58
Total Pop.(10-49)	97	100	97	100

The above table shows that only 3 persons are appointed as runners (who carry postal baggage). As indicated earlier one fellow is

serving at Telkoi as peon.Table-3 also shows that the total cultivators are 103,male 66 and female 37.

Only 3 males work as daily labourers and among the females 5 are daily labourers. The other capable males and males and females are still in the stage of collecting and food gathering.

Marriage and Family:

Marriage is a social institution and has its own importance in Juanga society. The Juangs are generally an endogamous tribe following their clan exogamy, Monogamy is the only form of marriage. But in exceptional cases, they can keep more than one wife. In Panasanasa, only one such case was found, (Laxmidhar Naik son of Nata Naik, has two wives living together. He got the 2nd wife because the first had no issue. It is found that all the two wives stay together very normally. They also live without creating any difficulty for Laxmidhar. (These fall under three categories, such as (1) Arrange marriage, (2) Udlia (love) marriage and (3) Widow marriage.)

Table-4 : Distribution of Population by Marital Status

Age	Unmarried		Married		Windowed		Divorced		Total		
Group	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	T.
00-15	65	67	0	0	0	0	0	0	65	67	132
15-19	17	4	1	8	0	0	0	0	18	12	30
20-24	2	0	5	14	0	1	1	0	8	15	23
25-29	0	0	14	16	0	1	0	0	14	17	31
30-34	0	0	12	11	0	2	0	0	12	13	25
35-39	0	0	15	7	0	7	0	0	15	14	29
40-44	0	0	4	0	1	2	0	0	5	6	11
45-49	0	0	4	0	1	2	0	0	5	2	7
50+	0	0	3	1	1	12	0	0	4	13	17
Total	84	71	59	60	2	28	1	0	146	159	305
%	27.5	22.9	19.3	19.7	0.7	9.5	0.3	0	48	52	100

*(Currently married females are more by one than the males because one man has two surviving wives).

By analyzing the figures, it is found that among the unmarried 132(43%) ae below 15 years, and only 23 (7.5%) are in the age group of 15-24 years. It may be said that nobody below 15 years is married, and nobody over 24 years remain unmarried. Again 28 (9.5) among the males are widowers. The remaining 119 (39%) person (M+F) are married. So only 39% of the total population constitute married persons.

Table-5 and Table-6 show the age of marriage of all ever-married men and women of different categories.

Table-5: Distribution of ever married women by age at first marriage

Present	Age at marriage			Total ever
Age group	below 15	15-19	20-24	married woman
15-19	1	7	0	8
20-24	0	15	0	15
25-29	3	12	2	17
30-34	3	10	0	13
35-39	3	11	0	14
40-44	2	4	0	6
45+	5	10	0	15
Total(%)	17(19.3)	69(78.4)	2(2.3)	88(100)

(Average age at marriage is 15.7 years).

Table- 5 shows that in all the age categories, majority of women are seen to marry between 15 to 19 years. Mostly, the marriage takes place in between 15 and 16 years, average being 15.7 years. Of course, this age is slightly below the approved age for marriage of women (18 years) by the government of India. The Juangs age at marriage for women is much lower compared to the Khasi women whose average age at marriage is above 20 years (Deka 1972). The case of child marriage is also noticed in a few age categories. So far as child marriage is concerned, after marriage the bride is not allowed to stay with her groom until and unless she attains puberty. During the last ten years such child marriage has not been noticed. The reason behind this, according to them, is they prefer a grown-up girl as a bride so that she can work for the betterment of the family and ease the economic difficulty. The repeated advertisement of the Government to

stop the child marriage might also have some influence on their attitude towards child marriage.

Table-6 : Distribution of ever married men by age at first marriage

Present	Age at marriage			Total ever
Age group	below15	15-19	20-24	married woman
15-19	0	1	0	1
20-24	0	2	4	6
25-29	0	4	10	14
30-34	0	5	7	12
35-39	0	6	9	15
40-44	1	2	2	5
45+	1	5	2	9
Total(%)	3(4.8)	25(40.3)	34(54.8)	62(100)

(Average age at marriage is 20.1 years)

In Table-6, age at marriage of all ever-married men of different age categories are presented. It is observed that Juang men marry between 18 to 22 years, the average age at marriage is 20 years. Whereas the average Khasi men marry above 24 years of age (Deka 1972) which is higher than that of the Juang men. (The approved marriage age is 21 years for men by Government of India.

Age at marriage is important in studying the fertility of the people. It generally indicates the beginning of reproductive life (except the case of child marriage). Hence, early marriage indicates a long period of reproductive stage. But in this village the reproductive capacity is not very high which may be attributed to under nutrition. Only in one case a woman was found to have a child at the age of 40 years (approximate), but the child did not survive even upto one year of age.

Family :

Family is defined as "a group of two or more persons living together and related to each other by blood, marriage or adoption" U.S. Census Group.

Nature and type of family :

A. Extended or Joint Family: It includes the husband, the wife and their married and unmarried children.

B. Broken and incomplete family: Broken family consists of
   i. Father and his unmarried children.
   ii. Mother and her unmarried children.
   iii. Incomplete family consists of only newly wedded couples and also couples without children.

C. Nuclear Family: It consists of husband and wife including their unmarried children.

Structurally two types of families are noticed in the village. Joint or extended family, and simple or nuclear family. Few broken families along with some incomplete families are also present. But the nuclear families are widely distributed. The presence of nuclear families is very common only due to the separation of the son immediately after marriage. Table No.7 shows the distribution of the different types of families.

From the above Table it is noticed that the number of nuclear families present in the village is 48(56.5%). Joint families constitute 5.8% (5Nos) and the broken and incomplete families are 32 in number (32.7%).

Table-7 : Distribution of family types of the size of family

Size of family	Simple family%	Extended family%	Broken or incomplete Family%	Total %
1	00	00	5	5
2	00	00	14	14
3	14	00	8	22
4	16	1	4	21
5	13	2	1	16
6	5	00	00	5
7+	00	2	00	2
Total (%)	48(56.5)	5(5.9)	32(37.6)	85(100)

The average family size of the village is 4.1 which is evident inTable No-8.

Table-8 : Distribution of families by the size of family

Size of family	Number of families
1-3	42
4-6	41
7 or above	2

(Average family size is 4.1)

Fertility:

The study of fertility is one of the major items of demography.Fertility measures the rate at which a population adds to itself by births. It is assessed by relating the number of births in a population to the number of women of 'child bearing age' (15-44, or 49) of that population during a specified period. The rate of fertility is likely to vary not only from region to region but also within the same group in different sections and it largely depends upon the environmental effects as well as biological make-up.

The fundamental notion of fertility is the actual period of participation in reproduction within a population. Fertility can be ascertained from the statistics of births as well as conception. As it is difficult to obtain reliable information about the actual number of conceptions, the demographers have to depend upon the information of births only which is comparatively much reliable . Hence fertility is measured as a frequency of births in a population.

Information regarding fertility was collected from all the households in the village, numbering 85, out of which 48 are nuclear families, 5 are extended families and the remaining 32 are incomplete and broken families, Further, all the 'live births' of each married woman were taken into consideration and still births, miscarriage etc. were excluded. Of the total 159 females only 77 were found to be in their reproductive age (15-44), out of whom 14 were widows and 4 were unmarried. The total population was 305 (146 males and 159 females), see Table-1.

Table-9 : Age parity distribution and average number of children

Present age group	Order of births 0	1	2	3	4	5	6	7	8	9+	Total Children ever born	Total No. of Married women	Average No. of Children ever born
15-19	4	4	0	0	0	0	0	0	0	0	4	8	0.50
20-24	1	4	8	1	1	0	0	0	0	0	29	15	1.93
25-29	1	0	4	7	5	0	0	0	0	0	49	17	2.88
30-34	0	1	0	5	3	3	1	0	0	0	49	13	3.77
35-39	0	0	3	1	2	5	2	0	1	0	62	14	4.43
40-44	0	1	1	0	2	0	1	0	1	0	26	6	4.33
45+	1	1	0	4	4	2	1	2	1	0	68	15	4.53
Total	6	10	17	18	17	10	5	2	3	0	287	88	3.26

First, age parity distribution and average number of children of different age groups are computed and presented in Table-9. As the age of women increases the parity of woman also increases, resulting in an increase in the average number of children. Of courses, it is quite natural. But the important findings are:(i) the increase in the average number of children is clearly noticed up to the age group of 35-39,(ii) the age group of 40-44 shows a slight decrease in the average; and (iii) the last age group of 45 and above again in view of the smallness of the sample and one can easily say that the child bearing capacity ceases around the age of 40 years. This appears to be true for the Juangs because of under nutrition and such other health problems. The average children ever born or what is called the mean number of children ever born is 4.53 (taking into account the women of 45 years and above).

Table-10 : Age At First Conception In Various Age Group

Present age group	Age at first conception 14-15	16-17	18-19	20-21	Not conceived yet	Total ever married women	Mean age at first conception
15-19	0	3	1	0	4	8	17.0
20-24	2	8	3	1	1	15	17.1
25-29	3	9	4	1	1	17	17.1
30-34	3	8	2	0	0	13	16.3
35-39	5	6	2	1	0	14	16.3
40-44	3	2	1	0	0	6	15.8
45+	7	6	1	1	0	15	15.9
Total	22	42	14	4	6	88	16.5
%	(25.0)	(47.8)	(15.9)	(4.5)	(6.8)	(100)	----

(While computing mean, the women "not conceived" are excluded).

Age at first conception has been presented in Table-10. Only those conceptions which resulted in live birth were recorded. The majority of the women had their first conception during the age group of 16-17(47.8%), next to it, at the age group of 14-15 (25.0%). Only in 4 cases (4.5%), the conception had occurred at the age range of 20-21

years. In total 6 women (6.8%) had not shown any effective conception (conception resulting in live births). the mean age at first conception gradually decreases in the advanced age group. This reveals that the increased age at marriage and the family planning programmes have a slight effect on the mean age at first conception among the females of lower age groups. The overall mean age at first conception was 16.5 years. As majority of women got married around 16years (average age at marriage is 15.7 years as computed from the ungrouped data), the child bearing strata began shortly after that.

Table-11 : Interval between the age at marriage and the age at first conception

Age at marriage	Intervals 0-1	1-2	2-3	3-4	4-5	Not conceived yet	Total Ever married women	Mean interval
below15	7	4	5	3	3	2	24	2.1
15-19	32	15	9	2	0	4	62	1.2
20-24	2	0	0	0	0	0	2	0.5
Total	41	19	14	5	3	6	88	1.4
%	(46.6)	(21.6)	(16.0)	(5.7)	(3.4)	(6.8)	(100)	---

(While computing means the women "not conceived" are excluded).

Table-11 reveals that in 41 cases (46.6%) out of 88 ever married women, the first conception occurred keeping an interval of below one year from the age at marriage . In 3 cases (3.4%) the interval between the age at marriage and the age at first conception is more than 4 years, and these/are the cases of child marriage. The mean interval between these two events is 1.4years. If we look at the mean interval of the three different age group, we find that as the age at marriage increase the mean interval decrease. This is of course a natural phenomenon.

Table-12 : Age At Last Conception of Women 45 And Above

Present age group	Age at last conception 30-34	35-39	40-44	Total ever married women
45 & above	1	10	4	15
Percentage	(6.7)	(66.7)	(26.7)	(100)

(Mean age at last conception calculated from the ungrouped data-38.8)

As Table-12 reveals , out of 15 women, 10(66.7%) had their last conception in the age group of 35-39 years 4 (26.7%) in the age group of 40-44 and the remaining in the age group 30-34 years. The calculated mean age at the last conception is 38.8 year. This is really low in comparison to the normal physiological reproductive age of women. Hence the period of reproduction seems to be shorter due to various factors. The present study shows that out of these 15 women, 14 were widows. Again, 3 of them had lost their husbands in the reproductive. Only 4 women have given live births in the age group of 40-44 . But the remaining 8 women have really given their last live births before the age of 40, their husbands being alive up to the end of their reproductive period (menopause).

So it can be stated that under nutrition, unfavorable environmental factors and other biological factors are jointly responsible for lowering the fecund period of the Juang women by six years.

Measurement of Fertility:

A. Crude Birth Rate(CBR): It is usually calculated by relating the total live births during the year and the midyear population of that area expressed as a rate per 1000 population. The total live births of the present village during the year of study (Nov '73 to Nov '74)were 7 in number (4 boys and 3 girls) as shown in Table-13. Hence the CBR of the village during the said period was 23 per 1,000 population.

B. General Fertility Rate (GFR): It is the ratio of total yearly live births to the female population of "child bearing age" (15-44) and is also expressed per 1,000 females. The GFR of the village was 90.9 per 1,000 females.

C. General Marital Fertility Rate (GMFR): Here only married females of '15-44' age group are taken into consideration. It was 101.4 per 1,000 females.

D. Age-Specific Fertity Rate(ASFR): This is a ratio of births by age of the mother to the women of that age group.

Table-13 : Age Specific Fertility Rates

Age group	Live births			Female of that	A.S.F.R.	Cumulative
	M	F	T	age group		fertility rate
15-19	2	1	3	12	0.250	--------
20-24	0	1	1	15	0.067	0.317
25-29	0	0	0	17	------	0.317
30-34	2	0	2	13	0.154	0.471
35-39	0	0	0	14	------	0.471
40-44	0	1	1	6	0.167	0.638
Total	4	5	7	77	0.638	------

E. Total Fertility Rate(TFR): It is the sum total of the age specific fertil-ity rates (multiplied by the size of the class interval wherever necessary). The TFR of the village was (0.638 x 5) = 3.190 (sum of the ASFR is taken form Table-13).

F. Gross Reproduction Rate (GRR): Here, only female births are taken into consideration , hence it is the sum total of the age specific fertility rates pertaining to female births only. It was found to be 1.367. The gross reproduction rate has achieved wider accuracy in the study of replacement, though Net Reproduction Rate (NRR) is more accurate. But here, only one female of the reproductive age 15-44 was reported dead during the last year (Dec.1973 to Dec.1974). The effect of this isolated death on NRR would be negligible. Hence in such cases the NRR will be almost the same or a little less than the GRR. The NRR of the Juangs is around 1.35. This rate indicates the number of daughters produced per women, according to the present condition of fertility and mortality.

G. Child Women Ration (CWR): It is the number of children under 5 years of age per 1,000 women of "child bearing" age (14-44, sometimes 14-49). Hence the CWR of the village has been calculated to be 545 per 1,000 females. This also indicates a comparative low fertility rate.

Considering the above findings of the village regarding fertility it can be rightly stated that the Juangs have a low rate of fertility. The decreased reproductive span is the main contributory factor of this low

fertility rate among the Juangs. The comparatively low age at marriage does not have any serious effect on increasing the fertility rates as women do not continue to reproduce till the end of the reproductive period.

Mortality :

Mortality is another important factor like fertility, which determines the size of the population. Mortality influences not only the total size of the population but also its composition by age and sex. Categorically, morality can be divided under four different heads.

1. Infant mortality.
2. Child mortality
3. Mortality at reproductive ages.
4. Mortality at advanced ages.

In the village a total number of 7 persons have died during the period of reference (Nov.1973 to Nov. 1974) as presented in Table-14. Of course, it is equal to the number of births during last year. Out of those, 2 are infants (28.6%). 1 is a child (14.3%), 3 are of reproductive age (42.9%) of whom 2 are males and one is a female and the other one is an old female (14.3%). Aged males belonging to the age group of 50 years and above did not during the reference year.

Table-14 :Distribution of Deaths During Last One Year

Present broad age group		Male	Female	Total
00-01	Infant	2	-	2
01-14	Child	1	-	1
15-49	Reproductive	2	1	3
50+	Aged	-	1	1
Total		5	2	7

So far as infant mortality is concerned no female baby died during last year, when noticed the reproductive age it is found that only one female has died whereas two males died during the same period. Hence, the percentage of death among males is more than that of the females during advanced ages.

Crude death rate is the most commonly used measure of mortality, It may be defined as "the ratio of the number of deaths which occur within a given population during a specified year to the size of that population at mid-year.", (Rele 1966)

To calculate the mid-year population the size of the population at the beginning of year as well as at the end of a year is required. But it is not required for such micro studies. So instead of mid-year population the total population as on 30-11-74 has been taken for the calculation of the required demographic measures.

Hence the Crude Death Rate is (7/305 x 1000) 23 per 1000 and the Infant Mortality Rate is (2/7 x 1000) 286 per 1000 live births. Although death rate in comparatively low the IMR is very high.

Disease :

Disease is a vital agent for increasing the rate of morality. A considerable part of India population is killed by different kinds of disease. The ignorant tribal people who are more exposed to unhealthy conditions are mostly the victims of various disease.

The kind of diseases those were found among the people of the village during the study period has been reported here.

Table-15 represents the percentage of the different kinds of diseases in the living population.

Table-15 : Prevalence of Diseases in The Village

Present	Malaria			Influenza			Skin diseases		
age group	M.	F.	T.	M.	F.	T.	M.	F.	T.
00-09	-	-	-	1	-	1	1	2	3
10-19	1	-	1	2	-	1	2	-	2
20-29	-	1	1	-	-	-	2	-	2
30-39	1	1	2	-	-	-	-	1	1
40-49	-	-	-	-	-	-	3	2	5
50-59	2	-	2	-	-	-	2	1	3
60+	1	-	1	-	-	-	-	-	-
Total	5	2	7	3	-	3	10	6	16
%	(3.4)	(1.3)	(2.3)	(2.1)	-	(1)	(6.8)	(3.8)	(5.2)

(Total population was considered while computing percentages.)

It is malaria and the skin diseases which are very common. Almost all the people have more or less suffered from malaria. (It is for this fact the area is declared as an 'Agency Area'). During my study only 7 people (5 males and 2 females) have suffered from malaria, 16 (10 females + 6 males) from different kinds of skin disease influenza constitute 2.3% 5.2% and 1% of the total population respectively. For health consultation the Juangs still depend on their traditional medicine man. However, in very acute condition they go to the nearest health centre (Kanjipani) which is 7 kilometers away. Sometimes the malaria eradication workers do visit to the village for their regular recoding. Villagers also go to Sukati (17 Km away) to ask the doctor who has been appointed by the Sarvodaya seva mandal .Very rarely they go to the District Headquarters, (Keojhargarh) for medical check up. Indeed, it is observed that the Juangs are not very health conscious. Moreover, they feel that the supernatural objects are the cause of bad health and are also of the opinion that such supernatural objects be satisfied for the normal or good health of the people.

Attitude Towards Family Welfare:

Family welfare (Birth control, child and mother care) is the most important solution for the population problems which bring happiness and strengthens the economic status of the family as well as of the society.

The Juangs have some knowledge about the measures for birth control but they hardly practice it. On the contrary, they want a large family especially more son, who can help them in agriculture, and by the by, raise the rate of production. Last but not least, a few children may servive to take care or look after in their old ages. The main reason of this feeling is high infant and child mortality in their community, where neither the society nor the Govt. have any support for the old age.

It is noticed that the rate of birth is not high among Juangs rather infant morality counts more. Again, mortality among male is more. So it is but natural that they should want more of male births. The man who had more than 5 to 6 children at the time of investigation replied that they practice birth control in their own way by using local medicines,

and apply local methods.The investigator did not collect any further information regarding the local medicines as this was not practicable .

The villagers are not ignorant of the family planning programmers of the Government which have reached every comer of the village. But the only problem is the non-acceptance of the programme due to the conservatism of the people . A number of causes are also responsible for the failure of the family welfare programme, some of them are given below :

1. People have seen the death of the persons after being operated.
2. The people who are getting operated are not socially allowed to perform certain religious and traditional rituals.
3. Further, the infant and child mortality rates are high for which they do not accept the programme.
4. Last not the least, they strongly believe that the human being must not be sterilized like animals.

In spite of all this, 3 persons (all males) in the village are found to be sterilized. Out of these 3, one was sterilized when he was unmarried. It is only due to the temptation of getting a little money. However, he was married at the time of survey. After marriage he had to disclose the matter when he was found childless for some years.

The other two person accepted the programme after being the father of more than five children. Thus, the family welfare programme was a total failure in the village which needs to be fully activated.

Migration:

Migration is the third important component of demography which speaks of population movement during the year of study. During last year some marriages have taken place and due to this a few females have entered this village as well as some females of the village have gone out because of the similar reason. However, net migration due to marriages have not been considered in this study. As regards actual movements, only one family (Five members,3 males and 2 females) has come to this village during last year from a problematic village, Bali. Further, the lady of the migrant household is the daughter of this village. So, there was no objection by the villagers to accommodate

this family in their village. Nobody has gone out of the village last year. So, there was no out migration. As a result, the net migration to this village was only five and the net migration rate is calculated to the 16.4 per thousand.

Summary And Conclusion :

The present investigation was undertaken with a view to throw some light on the basic demographic characters of a Juang village. The village is located in the district of Kendujhar and can be considered as a traditional Juang village of Orissa. The investigation was conducted by the investigator himself and the methods employed were observation and interview. The time devoted to field work was twenty days.

The total population of the village, Panasanasaa is 305 individuals, 146 males and 159 females (sex ratio being 1089 females per 1000 males).

The village shows a lower percentage of literacy than the general population of India but is higher than the corresponding figures of some other communities. Females are 100% illiterate, whereas in a Khasi village the percentage of literacy is higher among females, (Deka 1972).

Bilingualism among males is very high as they have contact with the outside people.

Economically, the village is very backward. The following causes can be attributed for such backwardness.

1. Agriculture which is the main source of economy is greatly affected by scarcity of agricultural equipments, lack of irrigation facilities and such other factors.
2. Due to undernutrition, they are inefficient and as a result of this they find difficulty in getting jobs and have even less chance of being employed as daily labourers.
3. Many of the people are still in the stage of food collection, which puts them in the subsistence level.
4. Various development programmes of the Government are not successfully implemented in the village, separate evaluative survey is required to find out the exact reason of this failure.

5. The amount of agricultural harvest they get is hardly sufficient for 4 to 5 months, and the rest of the months of the year they depend on mango kernels. Even some of them donot get food for days together.

As regards the marriage and family, they adhere to their traditional norm. No man is allowed to marry outside their own tribe. Child marriage is not found now. Premarital sex relationship is not

approved by the society. Widow marriage is permitted. Polygyny is noticed to some extent. Cross-cousin marriage is prevalent. Age at marriage is comparatively low, male-19 years female-16 years.

Though divorce is found in Juang society, only one case was marked where the wife has left her husband after three years of marriage without having any issue.

The birth rate and death rate are very low compared to other tribal villages but higher in comparison to those of the state and national figures, see table -16 below.

Table-16 : Comparison of the present Demographic Data with other villages, states and the nation

	Present Village	A Gadaba Village	A Dom Village	A Khasi Village	Orissa	India
Sex ratio (Females per 1000 males)	1089 (1974)	1005 (1972)	1135 (1972)	909 (1972)	988 (1971)	932 (1971)
Average age (F)	16	18	19	20	16.5	17
Marriage (M)	19	21	21	24	24	24
Crude birth rate	23	61.7	51.7	45	36	41.3
Average no. of Children per women above 44 years	04.08	2.1	4.0	6.25	5.77	6.54
Crude death rate	23	65.0	53.1	25	15.7	16.8
Literate percentage	08.3%	2%	7.8%	45.7%	23.5%	9.35%

Source: (1) Present study (2) & (3) Man in society, Vol-1,(4) Journal of Social Research, Vol-XV,No-2.(5) & (6) Census of India 1971.

5.THE TODA POPULATION STRUCTURE

The Todas are concentrated in The Nilgiri Hills of Tamil Nadu which they claim as their traditional habitation .It lies in between 110 to 120 North latitude and 760 to 770 East longitudes. The Todas have been staying in that particular area, which is nearly 7,000 feet above the sea level, since a pretty long time presumably since the prehistoric period. Various authorities have attempted to trace their origin but have not reached a uniform conclusion Seligman related them to the Dravidians, Rivers suggested that they have resemblance with the Tribes of Malabar and Travancore, Lene considered them as a group of proto-Aryans, peter, Prince of Greece and Denmark has suggested that the Todas have a cultural link with the Sumerians and so on . However, conflicting the theories (of their origin) may be, everybody agrees to the fact that the Todas have a distinct social as well as a cultural system which greatly differs from that of the other Indian Tribes

Todas are known as buffalo herders and are famous for the practice of fraternal polyandrous system of marriage. It may be mentioned that the Todas solely depend on the domestication of Buffalo. Naturally, they live in early the stage of food-producing economy, though they hardly practice agriculture or horticulture or any kind of craft. Also, they are not used to hunting, fishing and such other food gathering activity. Of course, to supplement their food supply they often practice collecting of fruits, roots, tubers and other forest produce. To strengthen their existence and to have a proper cohesiveness they have developed a common economy like that of the cattle herders of Sudan - the 'Neur' (A South African Tribe).

As regards their social organization, the entire Toda society is divided into two parts, each called a moiety (Tarther and Teivali). Each moiety is strictly endogamous but some kind of uncommon marriages between the two are also permitted as exception to the general pattern. As has been mentioned above the most common form of marriage is fraternal polyandry (polygyny and monogamy is rarely noticed). To cope

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up with their tradition of polyandry the wives of all the brothers are held in common. When one brother is with the woman, he places a stick and his mentle outside the door of the hut. This prevents other brothers to enter. When the husbands are not brothers (consanguineal) but clan brothers and live in separate villages, the wife usually visits them in turn for a month at a time. Besides the moiety endogamy and clan exogamy, the Todas also avoid marriage with certain kins . A man is not allowed to marry his parallel cousin of his children .

The most preferred marriage is between the cross - cousins (mother 's brother's daughter or the father's sister's daughter).They hardly get opportunity to marry the daughters of the same parents. Child marriage is practiced in their society and at times it takes place even at the age of two or three years. Marriage by negotiation is the traditional rule of the society where the father of the groom takes the load. The wedding takes place at the house of the bride where she remains till her puberty.

Table - 1 : Toda Population In 1961 & 1971

		1961			1970	
	Persons	Male	Female	Person	Male	Female
Total	716	375	341	295	503	442
Rural	591	321	270	741	391	350
Urban	125	54	71	204	112	92

Source: *(1) Census of India, 1971 , special Tables for Scheduled Tribes, Vol-1, Part-v(A). (2) Census of India, 1971 , scheduled caste and scheduled Tribes, series-1, Paper-1 of 1975.*

Another interesting feature of the Toda society is the system of divorce. Generally, a woman is divorced not for her barrenness or adultery but for her laziness and foolishness. Widow marriage is also allowed by the society. The system of transferring wife (even without her consent) from one man to another is also accepted by the society. Rivers, considering the above factors, has extramarital sex relations are freely permitted even they do not have the concept of adultery in their society, (Bhowmik 1971).

In such an open society, it should be quite interesting to study the growth pattern and the population structure.

The statistics calculated from table-1 are mentioned below:

a.	Growth of Toda population	(1961-71)	……	31.98%
b.	Growth of Rural population	….	…..	25.38%
c.	Growth of Urban population	….	…..	63.20%
d.	Growth of male population	….	…..	34.13%
e.	Growth of Rural males	….	…..	21.81%
f.	Growth of Urban males	…….	…….	107.41%
g.	Growth of Female population	…….	……	29.62%
h.	Growth of Rural females	……..	……	29.63%
i.	Growth of Urban females	……..	……	29.58%
j.	Sex ratio of 1961 (M/F x 1000)	……	…..	1100
k.	Rural Sex ratio 1961	…….	……	1189
l.	Urban sex ratio 1961	…….	……	716
m.	Sex ratio of 1971	….	……	1139
n.	Rural Sex ratio 1971	……	……	1117
o.	Urban Sex Ratio	….	……..	1217

As it is noticed from the statistics of table-1, the decadal growth rate of the Todas is 31.98% as compared to 26.00% for the total Scheduled Tribe population of India during the same period. Hence, it is clearly and factually evident that Toda population has increased more in comparison to the Scheduled Tribe population of India. Further, the Rural growth rate (25.38%) is far behind the urban growth rate (63.20%). The faster growth rate of urban population is the consequence of sex selective migration among the Todas. The statistics show that the growth of Urban males (107.41%) is more than three times than that of the urban females (29.58%). In support of this statement the sex ratio of both the Censuses can be looked at. It is seen that the urban sec ratio of the Todas in 1961 was 761 males for 1000 females, but in 1971 the ratio has considerably

increased (1217 males for 1000 females) and the case is reversed for the rural sex ratio. Thus, the Rural -Urban male migration has been growing faster, showing a gradual change in Toda economy.

Further, looking into the over all sex ration of both the Censuses (1100, 1138 males per 1000 females in 1961 and 1971 respectively), three hypotheses can be drawn. The higher sex ratio in 1971 is due to

1. More male survivals during the decade.
2. More female deaths during the decade,
3. Both the above factors

For paucity of data it is not possible to say the exact cause of the higher sex ratio in 1971 census figure. But considering the social customs of the Todas it can be rightly stated that both the factors (No. iii) are equally responsible for the higher sex ratio. It is an established fact that Todas have a polyandrous society and male dominance is noticed and it is due to this reason they pay more attention to the male children and on the other hand female children are neglected, and consequently more males survive than the females. Again, the practice of female infanticide still exists in their society (of course comparatively less than the earlier days), Both these factors affect the Toda population composition. So, the number of males is higher than that of the female in both the censuses and the gap is widening day by day.

Table - 2 : Classification by broad age groups, 1961

	Total Population	Age group 0-14	Age group 15-44	Age group 45 years above
Total	714	302	296	116
Male	375	160	145	70
Female	339	142	151	46

Source: *Census of India, 1961 special Tables for Scheduled Tribes Vol. 1, Part - V (A)*

Statistical derivation from the table-2 is mentioned below:

a.	Proportion of population (0-14)	.....	42.29%
b.	Proportion of population (14-44)	.....	41.46%
c.	Proportion of population (45 & above)	.....	16.25%
d.	proportion of males (0-14)	.....	42.67%
e.	Proportion of males (14-44)	.....	38.67%
f.	Proportion of males (45 & above)	.....	18.67%
g.	Proportion of females (0-14)	.....	41.89%
h.	Proportion of females (14-44)	.....	44.54%
i.	Proportion of females (45 & above)	.....	13.57%
j.	Sex ratio of (0-14) population	.....	1127
k.	Sex ratio of (15-44) population	.....	960
l.	Sex ratio of (45 & above) population	.....	1522

Table-2 gives a picture of sex and broad age groups of the Toda population. The statistics show that the proportion of '0-14' age group is comparatively high (42.29%) than the other two age group '15-44' (41.46%) and 45 years and above (16.25%) . The 'fertile age group '15-44' of the Toda show a lower proportion (41.46%) in comparison to that of the scheduled Tribe population (43.34%) . But earlier we have seen that the growth rate during the last decade among the Toda was higher. It is due to the higher proportion of females in that particular age group. (Toda 44.54% and S.T. of India 43.77%) , Sinha 1976. Apart from this Toda fertility is expected to be higher because of the nature of their society.

As regards to the other two age group (0-14 and 45+) the proportions are comparatively high among Toads than that of the Scheduled Tribe population of India, (Toda 42.29% and 14.47% respectively). The absence of 1971 age data for the Scheduled Tribes makes it difficult to give a comparative analysis.

While concluding it can be said that the Todas have shown a considerable growth rate(31.98%) during the period 1961-1971 in spite of their high morbid conditions and other hazards. The high sex ratio

6. DEMOGRAPHIC ASPECTS OF THE GONDS

The Gonds constitute one of the major tribal groups of India. The term 'Tribe' has been defined as a social group usually with a definite area, dialect, cultural homogeneity and unifying social organization. It may include several sub-groups such as well as sibs or villages. The sub-groups and the small communities which constitute the entire tribe are linked both through consanguineous as well as affinal ties. It generally has a leader a common ancestor and a common patron deity, (Bhownick 1971). Considering all these aspects together, the Gonds have been categorized as a tribe in the full sense of the term . For this study all the Sub-groups of the Gonds are taken into consideration as mentioned by the Census of India.

The Gonds are found to be distributed in Madhya Pradesh, Orissa, Maharashtra, Andhra Pradesh, Bihar, Gujarat, Karnaataka and West Bengal, the largest concentration is found in Madhya Pradesh which is 78% of the total Gond population . The Gond population totaled

4.8 million on 1971 Census , i.e., 12.66% of the total Scheduled Tribes.

History ascribes the Gonds a tradition of monarchial rule and a stratified society. In anthropological literature they are famous for their bi-sexual association (dormitory), locally known as 'ghotul' which has a significant role in the process of enculturation and socialization of the young people. It has also a definite importance in the selection of mates which increases the status of women in the society. Gonds are mostly forest dwelling people and are at present settled agriculturists. The food gathering habits of the past are not altogether abandoned and shifting cultivation is often marked. The food habits of the Gonds are somewhat uniform. Their staple food is the gruel or millet and boiled rice. Both vegetarian and non-vegetarian foods are common among them. They hardly hesitate to take any kind of meat apart from their respective totemic symbols, Beef-taking is generally restricted which indicates their orientation towards Hindu religion, considering the physical features of the Gonds, A.C. Haddon has placed them in the group of Pre-Dravidian tribe, B.S. Guha, basing on his anthropometric studies has categorized them as Proto-Australoid, Culturally the Gonds belong to the Kolarian

Man in India, Vol. 59, No.3, Page - 186-191, Ranchi, 1979,

group of tribes in India. Their linguistic similarity with the original Dravidian language has given a ground to their present habitats between 9th and 13th century. Gonds follow tribal endogamy and clan exogamy. Monogamous marriage is common among the Gonds but polygamy is not altogether unknown Sororal polygyny (marriage with wife's younger sister) is preferred. Junior Levirate type of marriage (marriage with husband's younger brother) is encouraged by the society. Both types of cross-cousin marriages are preferred. Parallel cousin marriage is not noticed. They follow the system of patriarchy. Child marriage is not absolutely absent. Divorce in the society is allowed. Remarriage and widow marriage is also permitted. Above all Gonds lead a marital life without being much affected by the family planning programmes. Of course, they have their traditional taboos. (Ali 1973, Russel and Hiralal 1976).

Within the framework of above observations, it would be quite interesting to study of the important demographic aspects of such a close population. The study has its own limitations due to the lack of adequate data for finding out the vital event such as birth and death rates.

Objectives:

The major objective of the present study is to show a demographic profile of the Gonds and to establish its correlation with some of the socio-economic and cultural aspects of the prevailing society. An attempt is also made to compare selected demographic characteristics of the Gonds with that of the total Scheduled Tribes.

Sources of data:

The data for the present study have been primarily obtained from the 1961 census publication of India. The available data of the 1971 census are also successfully utilized. 1961 census gives the following information regarding Scheduled Tribes.

i. Name of the Scheduled Tribe and the area of enumeration.

ii. Industrial classification of workers by sex and residence.

iii. Age and marital status.

iv. Education by sex and residence.

v. *Religion by sex and residence.*

vi. *Mother-tongue and bilingualism.*

vii. Persons not at work classified by sex and type of activity.

The above information is available for individual Scheduled .

Tribes including the Gonds. However, similar information for 1971 are not fully available.

Table-1 : Growth of Gond population since 1921

Year	Population	Increase	Percentage
1921	2,902,592	---------	---------
1931	3,069,069	166,935	05.7
1941	3,201,004	131,935	04.3
1951	3,489,064	288,090	09.0
1961	3,991,767	502,673	14.4
1971	4,812,164	820,397	20.5

Source: i. Tribal Demography in India, 1975, P-28

ii. Census of India, 1961, Vol, Part-V-A (ii)

iii. Census of India, 1971, series-1 of 75.

Growth of Gond population:

Gond population totaled 4,812,164 in 1971 census, it has increased by 20.5 percent over the previous decade, the highest recorded in the history of Gonds. Table-1 shows the growth of Gond population since 1921. It is noticed from the table that there was a decrease in growth rate during 1931 and 1941 which is due to under-enumeration of the table in 1941 census. As Dr. Chandrasekhar mentioned, the 1941 census figures for these people have proved to be rather misleading, as the aboriginals were confused with the so called untouchables in certain places in the census returns, (Chandrasekhar 1950). Therefore, it is needless to go in details for those figures. As a matter of fact, the present study is based on the 1961 and 1971 census figures. Table-2 clearly indicates the sex-wise growth of Gond population. The table reveals that male population has increased little faster than the females.

Table-2 : Growth of Gond population by sex, 1961-71

Year	Male	Increase	ercentage	Female	Increase	Percentage
1961	1979093	----	----	2012674	----	----
1971	2397612	418519	21.15	2414552	401875	19.97

Source : Computed from (ii) and (iii) of table-1.

In regard to the state-wise growth during 1961 and 1971, Gujarat shows high rate of increase while West Bengal shows a decrease (Table-3). But these two states share a negligible proportion of Gond population as a result of which their growth rates (+ve or -ve) do not contribute much to the total growth rate. The total growth rate, 20.5% per decade, is lower than that of the total Scheduled Tribes which is around 25%. The lower growth rate among the Gonds is due to the comparative low birth rate during 1961 and 1971, (Sinha 1976).

Distribution:

The distribution of Gond population is highest in Madhya Pradesh, i.e., 78%. Orissa, Maharashtra and Andhar Pradesh show a distribution of 10% , 7% and 3% respectively. Bihar shows only 1% distribution. Gujarat, Karnataka and West Bengal show a negligible proportion of Gond population, 402, 1746 and 46 respectively, according to 1971 census.

Table-3 : Gond population growth by State, 1961-71

States	Population 1961	Population 1971	Increase/ Decrease	Percentage
Andhar Pradesh	143,680	157,489	13,809	9.6
Bihar	33,521	48,69	15,348	45.8
Gujurat	87	402	315	362.0
Madhya Pradesh	3,094,613	3,772,547	677,934	21.9
Maharashtra	272,564	331,798	59,234	21.7
Karnataka	862	1,746	884	102.0
Orissa	445,705	499,267	53,562	12.0
West Bengal	735	46	- 689	- 93.7
India	3,991,767	4,821,164	820,397	20.7

In 1961, Gujarat had the lowest distribution, i.e. 87 person only but in 1971 West Bengal reported the lowest as shown above. As regards the proportion of Gond population to the Scheduled Tribes population (12.66% in 1971 and 13.36% in 1961) , it has reduced slightly according to 1971 census, shown above. Such reduction in the proportion of Gonds is due to the fact that the rate of growth among the Scheduled Tribes is higher than that of the Gonds. As mentioned before, the Gonds in West Bengal show a negative growth rate in 1971 (Table-3), may be due to inter-state migration (West Bengal to Bihar). As a result of which Bihar has shown a high growth rate for the Gonds during 1971.

Urban Growth:

The distribution of Gond population in 1961 and 1971 by the place of residence is given in Table-4 and the proportion of the urban population is given in Table-5.

Table-4 : Percentage distribution of Gond population by state and place of residence 1961, 1971

	%Rural		%Urban		%of Gond Population to The total Gond population	
State	1961	1971	1961	1971	1961	1971
Andhra Pradesh	99.5	98.4	0.5	1.6	3.6	3.3
Bihar	90.1	87.8	9.9	12.2	0.8	1.0
Gujarat	85.1	97.0	14.5	3.0	----	----
Madhya Pradesh	99.1	98.5	0.9	1.5	77.5	78.4
Maharashtra	98.3	97.8	1.7	2.2	6.8	6.9
Karnataka	91.6	38.4	8.4	61.6	----	-----
Orissa	98.6	98.9	1.4	1.1	11.2	10.4
West Bengal	100.0	100.0	0	0	----	----
India	98.9	98.4	1.1	1.6	100.0	100.0

Source: Computed from (ii) & (iii) of Table-1.

Table-5: Proportion of Urban population, Gonds and Scheduled Tribes in selected States 1961, 1971

State	Urban Population		Gonds		Scheduled Tribes	
	1961	1971	1961	1971	1961	1971
M.P.	0.9	1.5	1.1	1.7	14.3	16.3
Orissa	1.4	1.1	2.1	2.9	06.3	00.4
Maharashtra	1.7	2.2	3.8	4.3	28.2	31.2
A.P.	0.5	1.6	4.3	5.1	17.4	19.3
India	1.1	1.6	2.6	3.4	18.0	19.9

Source: *Computed from(ii), (iii) of Table-1. And Census of India, 1961, Vol-1, Part-II-A (i) Census of India, 1971, Vol-1, Part-II-A(i)*

Table-5 shows the proportion of urban population among the Gonds, Scheduled Tribes and the State. The table reveals that the proportion of urban population is very less among the Scheduled Tribes and still lower in case of the Gonds. But it has increased during the last decade. Moreover, in M.P. and A.P. the urban Gond population of 1961 has almost become double and triple respectively in 1971. Hence it can be assumed that the rural urban proportion has decreased whereas in all other states it has increased. The possible reasons are return migration to rural areas (urban-rural) and urban migration to other states. The former cause is more appropriate as we see the urban sex-ratio is also declining in 1971.

Sex Composition of Gond Population:

The overall sex ratio of Gonds is low. i.e., 983 and 993 (males per 1000 females) according to 1961 and 1971 censuses respectively. But that of the total Scheduled Tribes is 1013 and 1018 (1961 and 1971). At the same time the sex ratio of India is 1063 and 1075 (1961 and 1971). As regards to state-wise sex ratio in 1971 all states except Madhya Pradesh and Orissa have a high sex ratio. The high sex ratio in those states is due to very less proportion of Gonds and at the same time a greater number of males might have migrated for the purpose of labour. Male migration among the Gonds is high, it is evident from the high sex ratio in urban areas. In all

the states it is noticed that the urban sex ratio of Gonds is high, as shown in Table-6.

This difference is due to high rural-urban migration among the Gonds. Table-7 gives the sex ratio of the Gonds, total Scheduled Tribes and the selected states by broad age group.

Table-6 : Sex ratio differential of The Gonds by State And Place Of Residence 1961, 1971

	Sex Ratio 1961			Sex Ratio 1971		
State	Rural	Urban	Total	Rural	Urban	Total
Andhra Pradesh	1,009	1,314	1.010	1,024	893	1,021
Bihar	835	974	848	1,021	1,261	1,048
Gujurat	1,000b	1,600c	1,071b	1,010a	2,000c	1,030a
Madhya Pradesh	980	1,268	982	987	1,244	991
Maharashtra	993	1,042	994	1,016	1,087	1,017
Karnataka	795	1,571	842	1,141a	1,089	1,109
Orissa	988	1,107	989	980	1,099	981
West Bengal	1,207	----	1,207a	313	----	313b
All India	981	1,191	983	990	1,204	993

A Population<1000, b Population<100, c Population <10
Source: Computed from (ii) & (iii) of Table-1.

Table-7 : Sex ratio of Gonds and Scheduled Tribes by broad age group in selected states 1961

State	Gonds			Scheduled Tribes			State		
	0-14	15-44	45+	0-14	15-44	45+	0-14	15-44	45+
M P	984	987	961	1010	992	976	1057	1056	1019
Orissa	999	1016	904	999	994	917	1011	998	922
Maharashtr	995	989	1017	1014	1004	1106	1013	1082	1098
AndhraPrade	1004	982	1120	1026	978	1182	1018	1007	1049
India	987	989	960	1029	991	1036	1057	1055	1099

Sex Ratio : Number of males per 1000 females.
Source : Computed from (ii) of Table-1 &, Census of India, 1961, Vol-1, Part-ii . C(i)

It is noticed from the table that sex ratio of the Gonds , in all the three age groups is low whereas the states show high sex ratio. In case of Scheduled Tribes the low sex ratio is observed in '55-44' age group. Such a low sex ratio among Gonds, which Is in favor of females, gives a clear idea that women are of great economic help to the tribal life, since they help in agriculture in collecting forest products, looking after children and household affairs. This shows the high economic and social status of women in their society. Specially among the Gonds the presence of the bisexual dormitory males the women status high in the society, (Ali 1973). Another reason can be cited here that males also face the double risk of morality.

Age Composition:

Age is one of the most important characteristics of a population. It has a wider use in demographic analysis. But due to the lack of single age distribution and quinquennial age distribution for the individual communities, it becomes a difficult task to have a clear age structure. However, the availability of broad age group has made the task a bit easir. Table-8 gives the distribution of Gonds, Scheduled, Tribes and the total population by broad age group of some selected states.

Table-8 : Percentage distribution of Gonds and the Scheduled Tribes by broad age group in selected States 1961

State	Gonds			Scheduled Tribes			State		
	0-14	15-44	45+	0-14	15-44	45+	0-14	15-44	45+
M.P.	41.5	42.4	16.2	42.3	42.7	15.0	40.7	43.9	15.4
Orissa	39.2	43.5	17.3	39.2	45.7	15.1	39.1	44.0	16.9
Maharashtra	4.04	44.2	15.5	43.4	42.7	13.9	40.7	43.9	15.4
A.P.	40.5	44.5	15.1	40.5	44.9	14.6	39.3	41.6	16.1
India	40.9	42.8	16.3	42.2	43.3	15.5	41.0	43.1	15.9

Source: Same as Table-7

It is noticed that the proportion of '0-14' population is over 40% among the Gonds. Such a typical pattern of age distribution is known as young population which is associated with high birth and high death rates. As compared to the total population the Gonds age structure is little younger. Moreover, misstatement of ages, specially at higher ages among any tribal group is quite obvious and can be mentioned as a cause for the low proportion of '0-14' age group Is more than that of the Gonds which reveals that Gonds have a lower birth rate compared to Scheduled Tribes. As mentioned above, the age distribution techniques cannot be used to estimate the extent of misreporting of ages.

Marital Composition :

Marital status of the Gond population of some selected states by broad age group is given in Table-9.

Table-9 : Percentage distribution of marital status by broad age group among the Gonds 1961

(A) Males

Age group	Total males	Never married	Married	Widowed	Divorced/ Separated
00-14	812,048	97.4	2.6	---	----
15-44	848,781	17.3	77.8	2.8	2.0
45+	317,625	1.2	83.2	14.2	1.3
No Res	639	76.5	20.0	30.0	0.5
Total	1,979,093	47.6	47.8	3.5	1.1

(B) Females

Age Group	Total Males	Never Married	Married	Widowed	Divorced/ Separated
00-14	822,955	94.5	5.3	------	0.1
15-44	858,254	5.7	87.6	5.2	1..5
45+	330,775	0.3	52.2	45.2	1.4
No Res	690	87.8	6.9	1.9	0.3
Total	2,012,674	41.2	48.1	9.8	0.9

** Negligible Source: Same Table-7*

The Table shows that 2.5% of male and 5.3% of female are married under 15 years of age. Hence it can be mentioned that child marriage is not completely absent. The low percentage of divorce and separated individuals however gives in idea that divorce and separations are permitted by the society. Moreover, remarriage as well as widow marriage is permitted among the Gonds, (Bhownick 1971). Out of the total population , 47.8% of male and 48.1% of female are married. These figures give an idea that monogamy is widely practiced among the Gonds. In the category of 'age not stated', the proportion of never married is very high and in particular the proportion of females is more than that of the males. The proportion of 'singles' by age and sex as shown in Table-10, throws some light on the females mean age at marriage.

Table-10 : Marital status among the Gonds, Scheduled Tribes and the total population 1961

Population	Proportion Unmarried & separated		Proportion of currently married		Proportion of widowed, divorced	
	Male	Female	Male	Female	Male	Female
Gonds	47.6	41.2	47.8	48.1	4.6	0.7
Scheduled Tribes	51.5	44.3	44.5	46.2	3.9	9.5
Total Population	52.9	42.4	43.0	46.3	4.1	11.3

Source: Same as Table-7

The female mean age at marriage in India for the 1961 census has been estimated to be 15.51 years, (Agarwal 1973). Since the Proportion of unmarried among the female Gonds are very close to the all-India figure, It can be assumed that the mean age at marriage of the females is around 16 years.

Birth and Death Rates:

In the absence of the age distribution of the Gonds the estimation of birth and death rates during the last decade becomes difficult. It is clear from Table-8 that the proportion of '0-14' population in the total population is slightly lower than that of the Gonds. It is an established

fact that the proportion of '0-14' age group mostly depends on the birth rates during the previous years. Hence, from the table, one can easily assume that the birth rates of the Gonds is higher than that of the total population. The birth rate of the total population of India is 41. 7 per thousand population (Agarwal 1973). So, the birth rate of the Gonds would be slightly higher than this value i.e. around 42.5 per thousand. Another method has been adopted for estimating the birth rate of Gonds. For this purpose, the GFR of Madhya Pradesh is taken into consideration. GFR of Madhya Pradesh is assumed as the GFR of the total Gond population (as 78% of Gonds are distributed in M.P). Hence by the assumed GFR the Crude Birth Rate of the Gonds has been estimated, i.e. 43 per thousand (as shown in Table - 11)

Table-11 : Estimated birth and death rates among the Gonds 1961

Methods	Birth Rate	Death Rate
Manual IV C (15)	42.60	22.10
Manual IV C (45)	39.33	18.83
B.R from GRF	43.65	23.15

Moreover, Gond population is a close population where the net migration is nil and it is a national population (as total Gonds of India is taken into account). So the birth and death rates have been estimated by using U.N Manual IV method. Birth and death rates have been calculated both by C(15) and C(45) ,(Table-11). Rates obtained from C(45) are seemed to be low. Rates estimated by C(45) and GFR method are close. Hence it can be said that the birth rate of the Gonds during 1951-61 would be around 42 per thousand population and that of the death rate around 22. It is seen from Dr. U.P. Sinha's estimation that the birth and the death rates are around 47 and 25 per thousand population respectively for the total Scheduled Tribes (Sinha 1976). So, it can be stated that the Gonds had a lower birth rate compared to the total Scheduled Tribes . The death rate, which is very high is due to the lesser knowledge on hyegine and lesser exposed to the modern health practices. Besides,

diseases like malaria and cholera are wide-spread among tribals. Further, due to poor socioeconomic condition they also suffer from malnutrition which contributed to the high death rates, (Ali 1973).

Socio-economic Characteristics Literacy :

Education (literacy) is an important indicator for the overall development of a particular group. As a matter of fact tribal and the rural masses are away from the track of education. However, the present study reveals the percentage of literates among the Gonds and also shows the increase in the literacy rate. Table-12 gives the percentage distribution of literacy by sex and place of residence.

Table-12: Percentage distribution of literates by sex and place of residence among the Gonds 1961

	Rural			Urban		
Year	Male	Female	Total	Male	Female	Total
1961	11.8	1.1	6.5	30.1	5.6	17.9
1971	15.5	2.5	9.0	34.7	10.0	22.4
% Increase	3.7	1.4	2.5	4.6	4.4	4.5

Source : *Computed from (i) of Table - 1, PP: 223-268*

The Table shows that the urban area both male and female literacy rates are higher than that of the rural areas. The percentage increase in the literacy among the Scheduled Tribes population according to 1971 census is 11.30% but Gonds show a lower rate, i.e. 9% in 1971. According to the 1961 census Gonds had a literacy rate of 6.5% to the total Gond population, such an increase of 2.5 % in 1971 is due to the educational programmers of the government.

Industrial Classification :

Table-13 gives the percentage distribution of workers and non-workers by sex and place of residence.

Table-13 : Percentage Distribution of Industrial classification by sex and place of residence among the Gond 1961

Industrial	Rural			Urban		
Category	Male	Female	Total	Male	Female	Total
I	74.40	73.69	74.05	10.23	12.20	11.21
I	18.75	21.58	20.16	7.08	14.47	10.77
III	2.60	1.10	1.35	21.16	11.50	16.33
IV	1.06	0.82	0.94	1.88	5.93	3.91
V	0.16	0.08	0.12	9.88	7.97	8.93
VI	0.23	0.11	0.17	5.70	5.73	10.40
VII	0.13	0.12	0.13	6.01	8.22	7.12
VIII	0.14	…	0.07	8.23	2.07	10.15
IX	2.53	2.49	2.51	30.45	31.91	31.18
Total worker	64.62	57.06	60.84	65.90	36.11	51.00
Non-worker	35.38	42.94	39.16	34.10	63.89	49.00
Total Gonds	195662	1993838	3950500	22431	18836	41267

* (I) Cultivator, (II) Agricultural labourer, (III) Mining, Quarrying, Live stock , Forestry, Fishing, Hunting , Plantation, (IV) Household Industry,(V) Manufacturing other than Household , (VI) Construction, (VII) Trade and commerce, (VIII) Transport , storage and communication, (IX) Others.
Source : computed from (I) of Table-1,PP : 4-103

It shows that 70.04% of the total workers are cultivators and 20.16% are agricultural labourers in rural areas. The total percentage of worker in rural area is 60.84% to the total rural Gond population and that of the urban is 51%. These percentages are higher in comparison with the percentage of rural and urban workers among the total Scheduled Tribes, the percentage of which are 57% and 43.8%. The Table also shows that percentage of female worker in rural areas is more as compared to the urban areas .

Conclusion :

The Gond population slightly differs from the total scheduled Tribe Population as well as from the general population of India in many

of the demographic features. However, the difference in regard to the birth rate, death rate and sex ratio are more visible. The Census data do not provide sufficient information to have an analytical picture of any individual community . It requires a number of anthropo-demographic studies among the tribes, particularly among the Gonds in the present context, to properly correlate the existing socio-cultural characteristics with that of the demographic patterns and to show the cause-and-effect relationships.

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7. SOCIO-ECONOMIC AND DEMOGRAPHIC CONDITION VIS-A-VIS EDUCATIONAL ATTAINMENT OF THE TRIBES

(A comparative study of the major Tribes of Keonjhar District, Orissa)

Tribal education has been a problem in the country since it was taken up as one of the developmental programmes. Nowhere in the country the programme is an absolute success. When mere acceptance of education is a problem on the part of many tribes one cannot dream of achieving the targets which are often ambitious. Irrespective of all types of provisional programmes, there are so many variables which are combinedly responsible for this tragedy. Besides the administrative and organisational factors, there are some more important factors which are not compatible with the local tradition .Let us discuss about the socio-economic and demographic conditions of the tribes which have definitely affected their educational attainments. The major tribes of Keonjhar district of Orissa have been selected for the purpose. Tribes which have more the 10,000 population in the district are considered as 'major tribes' of the district for the purpose of this analysis.

The varied socio-economic conditions of these major tribes have been described in this paper along with their educational attainments . To compare the educational standards or attainments three different criteria have been selected, such as: literacy rate, enrolment position at primary level (children of 6-11 years) and the retantion ratio. The figures are presented in Table 1,2 and 3 respectively.

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Table-1 :Comparative literacy for the major Tribes of Keonjhar, Orissa

Sl. No.	Name of	Population	Percentage of literacy the tribes
1	Kolha	1,19,388	8
2	Bhuyan	75,644	12
3	Gond	54,768	24
4	Bathudi	50,042	24
5	Santal	44,435	8
6	Saunti	44,728	13
7	Saar	21,774	10
8	Juang	14,594	7
9	Bhumia	10,375	9

Source: District Educational Profit, Keonjhar, Goverment of Orissa, 1980, p-8.

Table-2 : Block level literacy, enrolment and retention

Sl. No.	Name of the block	Major tribes found in the Block	Percentage of litercacy	Enrolment of 6-11 age group	Retention ratio
1.	Champua	Kolha, Saunti	18.28	63.07	24.33
2.	Jhumapura	Kolha	11.27	74.49	19.79
3.	Joda	Kolha, Bhuyan,Santal	17.08	51.51	07.78
4.	Ghatgaon	Kol, Gond, Bhatudi	12.29	76.95	10.88
5.	Harichandanpur	Kol, Saar, Juang	25.00	67.08	14.10
6.	Telkoi	Gond , Kolha	24.66	70.00	09.47
7.	Banspal	Bhuyan , Juang	14.15	60.15	08.81
8.	Salharpada	Kolha, Saunti	18.68	90.14	24.54
9.	Keonjhargarh	Kolha, Suanti	43.28	78.58	20.57
10.	Patna	Gond, Santal	24.11	59.95	10.88
11.	Ghasipura	Saar, Santal	40.43	93.13	30.08
12.	Anandpur	Kolha, Bathudi	27.07	90.13	30.08
13.	Hatadihi	Bathudi, Kolha	37.15	81.89	13.40

Source: District Educational Profile, Keonjhar Government of Orissa , 1980, P-7 & 31.

Table-3: Enrolment and retention among Tribal at primary level and the percentage of plan cultivators

Sl. No.	Name of the tribe	Percentage of plain Cultivators (Approx. Fig.)	Population	Child population (6-11)	Total primary enrolment	Percentage of enrolment	Retention ratio (Class-v/ Class-1)
1.	Kolha	(30)	1,19,388	17,103	7,675	44,88	7.48
2.	Bhuyan	(40)	75,644	10,524	6,337	60.21	8.69
3.	Gond	(70)	54, 768	8,438	6,662	78.95	11.51
4.	Bathudi	(70)	50,042	7,170	5,388	74.11	14.26
5.	Suanti	(40)	44,724	7,189	4,296	59.76	11.63
6.	Santal	(60)	44,436	5,964	3,583	60.08	10.79
7.	Saar	(60)	21,774	3,005	2,038	67.82	10.38
8.	Juang	(20)	14,594	2,126	853	40.72	1.69
9.	Bhumia	(60)	10,375	1,489	750	50.59	22.15

The major tribes of Keonjhar are categorized mainly under three economic groups: the settled cultivators, the shifting cultivators and the landless labourers. So far as the settled cultivators are concerned, they also act as the labourers during the off seasons. The tribes which are primarily settled agriculturists, are the Gonds, the Bathudis, the Santhals, the Saars, the Bhumias and the plain Bhuyans. They are widely distributed in the blocks of Ghatgaon, Patna, Saharpada, Anandpur and Ghasipura (Table-4).

The tribes who practice shifting cultivation are the Juangs and the Pauri Bhuyans. These tribes have a very primitive type of economy. They are in the stage of food gathering and hunting. Though these tribes practice shifting cultivation they are yet to be categorised as food producers, they are still grouped under the food gatherers. They have purely subsistence economy. These people leave their homes early in the morning for the collection of wild roots, fruits and firewood and return in the evening. They are distributed in the blocks of Joda, Banspal and Telkoi (Table-4)

Table-4 : Distribution Of Tribal Populations In Different Blocks (in Percentage)

Sl. No.	Name of the Block	Non Tribal	Kolha	N AM E Bhuyan	O F Gond	THE Bathudi	TR IB ES Suanti	Santal	Saar	Juang	Bhumia
1	2	3	4	5	6	7	8	9	10	11	12
1	Chamdua	56.71	14.24	05.06	06.82	01.90	10.55	01.01	0.64	-----	----
2	Jhumpura	51.68	18.54	06.78	02.65	06.36	06.98	03.40	-----	-----	----
3	Joda	28.00	21.75	38.22	00.54	-------	01.16	11.67	----	----	----
4	Ghatooan	33.84	16.82	-------	18.98	19.53	04.83	03.85	----	01.45	-----
5	Harichandanpur	44.53	15.57	02.62	06.58	05.81	00.34	05.63	7.52	05.86	2.13
6	Telkoi	44.71	12.07	06.53	14.44	02.26	00.36	----	2.07	04.71	3.21
7	Bansapal	18.47	13.07	52.90	------	00.45	00.50	00.65	----	19.12	-----
8	Keonjhargarh	45.51	15.65	04.85	05.12	02.20	08.99	04.81	4.62	-----	5.55
9	Patna	46.72	10.77	01.70	17.58	05.52	11.39	01.94	1.34	-----	-----
10	Saharpara	43.11	19.95	01.30	04.38	12.86	11.75	08.00	0.20	----	-----
11	Ghasipura	82.72	------	00.12	00.49	02.30	00.23	07.42	5.03	-----	-----
12	Hathodi	81.25	03.76	------	00.81	05.36	01.49	03.07	1.55	----	0.79
13	Aanadapur	64.73	10.64	03.42	03.96	05.79	03.51	04.49	3.40	-----	-----

Computed from data of the District Educational Profile, Government of Odisha, 1980, P-7-42.

8. FERTILITY DIFFERENTIAL BY EDUCATION STANDARDS

(A Case Study of Orissa)

Fertility, or the capacity of production as it is generally understood, doe not only depend on natural or biological factors. There is an extensive body of data describing differences in fertility among various countries at a given time, within a single nation, such as rural and urban areas, and among different social, economic and educational categories. In the present paper an attempt has been made to show the fertility differential in Orissa's population by various educational standards. The Chief source of data is the Census of India Publication, Series-16, Part-II-C (ii) Social and Cultural tables. It was in fact published in1980 and based on 1971 Census operation.

The State of Orissa is surrounded by West Bengal, Bihar, Madhya Pradesh and Andhra Pradesh on its north, west and south respectively, and the entire east by the Bay of Bengal.

The State has 4.75 per cent of the total land area of the country and accounts for 4(3.85) per cent of the population of the country. The growth rate of Orissa during 1971-81 was 19.72. The annual growth rate worked out to 1.97 per cent. During the previous decade (1961-71) was 25.05 percent. It shows that decadal growth rate has considerably decreased. The urban population is 11.82 percent. In 1981 census and it was 8.41 in 1971. The literacy rate according to 1981 census is 34.12 percent. As regards the density of population per square kilometer, it is 169 in 1981 compared to 141 in 1971. Regarding the calculation of various measurement of fertility, 1971 data have been utilized.

At the outset, the distribution of Currently Married Women (CMW) and children born to them by educational standards and place of residence have been shown and also the Marital Fertility Rate (MFR) has been calculated.

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Table-1 : Distribution of Currently Married Women and Birth and Marital Fertility Rate by Place of Residence.

	RURAL			URBAN		
Education	C.M.W.	Birth	M.F.R	C.M.W.	Birth	M.F.R
			per thousand			per thousand
Illiterate	404104	84882	21100	227490	32170	141.4
Literate	41511	9849	237.3	142580	23450	164.5
Below H.S.C						
Matriculates &	1953	567	290.3	12700	2710	213.4
Below Graduate						
Graduates &	227	25	110.1	3915	690	176.2
Above						

The table shows that the Marital Fertility Rate (M.F.R.) is the highest among the matriculates and above in both rural and urban areas, (290 and 213 per thousand respectively). Lowest M.F.R (110 per thousand) in case of rural areas is noticed among the graduates and above.The illiterates among the urban area is (141 per thousand). Compared to the rural areas the Marital Fertility Rate is less in urban areas (213 per thousand and 160 per thousand respectively).

TABLE -2.A indicates the marital fertility rates by age at marriage and educational standard. It shows that the educational standards do not have any impact where that age at marriage is less than 13 years. In rest of the cases where the age at marriage is more than 13 years, the graduates and above show comparatively less MFR. This trend indicates that higher education, particularly graduation and above, has some impact of fertility in rural areas. But in case of urban areas the illiterates show lower MFR. This is really interesting, may be due to the pressure of Urban life style.

Table-2 : Distribution of Currently Married Women and Birh by Education age at Marriage.

(A) RURAL

Age at Marriage	illiterate			Literates below Matriculate			Matriculates & below Graduates			Graduates & above			
	CMW	BIRTH	MFR	CMW	BIRTH	MFR	CMW	BIRTH	MFR	CMW	BIRTH	MFR	
Below-13	18271	3345	183	2787	571	205	143	30		210	20	4	200
13-17	273285	56310	206	27373	5879	215	1086	287		264	96	10	104
18-22	85493	19035	223	8004	2370	296	562	209		372	69	9	130
23-27	11600	3250	280	1523	624	410	77	18		234	14	2	143
28+	8518	2354	276	1083	341	315	57	20		351	3	0	-

(B) URBAN

Below-13	15816	2290	145	7150	1065	149	130	20		154	60	5	83
13-17	158415	23405	148	86715	16890	195	4690	995		212	630	75	119
18-22	47900	6075	127	28125	5245	187	6845	1505		220	275	195	90
23-27	2045	225	110	1370	200	147	755	180		238	870	105	121
28+	795	80	101	255	20	78	105	7		68	135	8	59

To know about this interesting fact a socio-demographic study is highly essential. The MFR of the following two categories is higher than that of the last category, the graduates and above. It shows that lower education has hardly any impact. Only graduation and above has some impact on fertility. This is possible because of the fact that higher education directly affects the age at marriage. Further, this table shows that in urban area the MFR is lower than its corresponding categories in rural area. Hence one can safely conclude that urbanization has certainly some impact on fertility, This can be further proved if we analyse the figures in Table-3 where the age specific marital fertility rates (ASMFR) have been shown by place of residence.

Table-3 : Distribution of Currently Married Women and Birth by Age-Group and Place of Residence

	Rural			Urban		
Age-Group	CMW	Birth	ASMFR	CMW	Birth	ASMFR
Below-13	2028	200	98.6	180	0	-
13-17	40521	7238	178.6	15495	2020	130.4
18-22	70956	23173	326.6	96181	18275	264.2
23-27	74274	21972	295.8	72800	17550	2410.1
28-32	63547	19010	299.0	68760	12590	183.1
33-37	51272	11538	225.0	45150	5425	120.1
38-42	15514	6293	138.2	36915	2090	56.6
43-47	30931	3448	111.5	20065	252	26.2
48+	68932	2451	35.6	40140	545	13.6

The table shows that the age specific marital fertility rates in urban areas is lower than those of the corresponding age-group in rural areas. The total marital fertility rate has been calculated up to 8.546 in case of urban area and that of the rural is 5.277(The Total Fertility Rate being 4.88 and 4.20 respectively). Table-4 gives a comparative picture of literacy levels and various fertility measurements.

Table-4 : Distribution of Literacy Rates and Fertility Measurements by Place of Residence

Place of	Litearacy			Measurements of Fertility				
Residence	Total	Male	Female	CBR	TFR	GFR	GRR	NRR
Rural	24.09	36.14	12.06	33	4.88	270	2.25	1.52
Urban	49.00	60.00	36.05	29	4.22	163	1.93	1.23
Total	26.18	38.29	19.92	31	4.54	201	2.07	1.32

The above table indicates that the higher the literacy rates the lower are the fertility rates and the vice versa. It seems various fertility

measurements are highly correlated with the literacy rates. Analyzing this table, one cannot conclude that literacy is the only cause for the decline of fertility. Further, as it is noticed in previous tables (Table-1 and 2), mere literacy does not have serious impact on fertility measurements

It is, in fact, very difficult to draw some concrete conclusions in this regard taking the census figures. So far as the above analysis is concerned one can safely draw some hypotheses to be proved by demographic researches. Foremost among the hypotheses , fertility is lower in urban areas compared to the rural sector. Further, high literacy rates are correlated with low fertility rates. Higher education has some definite impact on fertility but not the mere literacy .As shown in tables 2A and 2B the lowest fertility is noticed among the graduates and above, but the other two literate categories do not have any sort of change as compared to the illiterates. On the basis of facts, it can be said that school education lacks the materials to provide ideas regarding population problems. Hence the author here emphasizes on the implementation of population education in school curriculum without changing the existing system.

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9. TRIBAL DEVELOPMENT NEED FOR A NEW LOOK

Socio-Economic Development of tribals and weaker section have become the far cry of the Central as well as the State Governments. Since 1950 various measures have been taken up for the amalgamation of such down trodden people . But almost all the Government Programmes are proved to be not that effective . What is the reason of the failure and how did all the Programmes fail to achieve their targets? Here a genuine attempt has been made to answer this question and a few suggestions have been made which can, if sincerely considered by the planners and the administrators, bring some change among the weaker section , Particulary among the tribals .

Agricultural Provisions :

According to the Provision of the Government , Plots of land are being supplied to the landless, True ,but mere lands are not sufficient. In addition to land, other facilities which are provided do not hold good. For example, the drawing animals (buffaloes and bullocks) which are supplied. These are not of local Variety. These animals are to be fed sufficiently which is a very difficult task for the tribals . Further, the changed environmental conditions create problems for these animals . As a result of all these factors the life span of the drawing animals have almost become one-tenth and ultimately the tribals suffer. The best way would be to supply the local variety of animals which can depend only on grass and not on other costly cattle-feed. Along with this some amount of money or materials for cattle sheds are to be supplied and necessary veterinary facilities should be provided properly . Further the 'Hoe' cultivators are also to be trained adequately for the use of modern plough. Similar is the case of pesticides and fertilizers. The tribal people are to be trained carefully in the use of such modern chemicals in a proper way. Cases have been noticed that the wrong use of fertilisers and such other chemicals have affected the crops badly in some areas. In those areas the natives have come to believe that fertilizers and

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chemicals damage the crops instead of benefiting them. Hence, in the following years it becomes very difficult to convince the people in the use of fertilisers and pesticides.

Rehabilitation Programmes :

The tribal people mostly like to stay in the hilly forest areas away from the urban centers, they are patterned to such type of living. They have been acclimatised to such eco - system . Further, they stay in small pockets or villages. Sometimes the entire villagers belong to a particular clan or sub - clan. Last but not the least, they have well defined social structure, political organisation, religious institutions and economic system . Above all, they have become slaves of their own culture. It will be very difficult to bring any overnight change among these people. Do the authorities take all these features into consideration for making their rehabilitation programme a success? It may be assumed that the implicit socio - economic, politico - religious features have hardly been taken into consideration . Had these factors been taken into consideration there would have been no trouble at all for making different programmes successful . All programmes should be made with some sort of foresight. Then there should be regular monitoring evaluative studies until the people become fully patterned and well accustomed with a given programme.

Take the example of the provision of houses, with much reluctance tribals accept these tile roofed houses. Mere acceptance of the houses does not mean the programme has become successful. After a period of five year one would find the same age old thatched houses in place of the tile roofed ones. All these happen because the tribals do not know the availability and repearing of these tile roofed houses. They even do not know where to get skilled labourers. If at all they know where to get labourers they do not have money to pay for it. So, when the tile roofed houses need repairs, they face problems and prefer to construct their traditional houses. The best way of solving the problem is to train them in making tiles and the technique of using those tiles. With their own labour-force the houses should be constructed, then only the programme will be successful, because they will have an attachment for the houses which they have constructed by their own effort.

Advancement of Loans:

Government loan facilities for the tribals have not yet solved the problem of tribal indebtedness and bonded labour. People are still running to the local land lords and money-lenders. It is not that the money - lenders advance loans at a lower rate of interest, or that they write off the loans. It is only because they give money right at the time of need. But the financial institutions never give money so easily. The paraphernalia of the modern financial institutions never give chance to release money within a short time. Further, the illiterate tribals are ignorant of the modern system of monetary transaction from the institution. Moreover, as the lending institutions are so limited in number, particularly in the rural areas, they hardly have any impact on the rural and tribal people.

The Government should not create any difficulty in lending the money. Here the village level workers or ward members can play a very constructive role as they know each and every villager personally (if not, they must have to know) and their requirements. Whenever a villager needs money they should bring that person to the nearest financial institution and the minimum necessary amount should be provided by the institution after noting down the name and address and the signature or thumb impression of the person. A marginal interest may be charged. This would also save the tribals from the torture of the money-lenders. Ofcourse, this scheme should be tried on an experimental basis before its implementation.

Educational Programme :

Now let us look at the educational programmes. Of course, free books, mid-day meals, free education and almost all types of facilities, which Government could think of, are being provided to all the tribal students. The school attendance registers also show a good number of students in the school. Among rural tribals 10 per cent are literate and among the urban tribals 17 per cent are literate, according to the 1971 Census in Orissa. Compared to the total state figures these figures are very low.

Jawaharlal Nehru once said, "We should judge results not by statistics or by the amount of money spent, but by the quality of human

character that is evolved". Hence, if we really go to the tribal school and see the actual conditions of the students and the school, all the statistics will sound hollow. Hardly a dozen student, that too only boys, would be present. All this failure is due to the socio- cultural conditions of the tribal society where children are their assets. They not only help their parents in household work, but also earn a small income for the family. So, if they send their children to the schools there would be a net loss in their total family income. Even after two to three years of schooling they find their children returning to the traditional work . Therefore, there is a heavy dropout in case of tribal students. Further, the teachers also do not take proper interest; rather they exploit the tribals in many cases.

To counter this situation the parents of each student should be motivated. They should be given some amount of cash (monthly or weekly), for sparing their children for a certain period . Right type of teachers should be appointed on reasonably good salaries. Constant and proper supervision is also required. Strong actions should be taken against the corrupt teachers as well as the officials. There should be local holidays for the local festive occasions and religious ceremonies. It is the duty of the teachers to create homely atmosphere inside the school. They should cite examples from the local tradition and culture to create intirest among students. A combined approach of the educationists and anthropologists is necessary in this direction.

All the points suggested here require experimentation before their implementation. No doubt, the budget necessary for the successful implementation of these schemes will be far more than the present one. In urban areas a lot of money is being spent, so why not for rural areas also, as most of our plans are rural oriented. Apart from the Government programmes various social welfare agencies must be encouraged to take up different developmental schemes. There should be a thorough inter-action between the Government, the social welfare agencies and the local people. Finally the success of all these programmes and schemes mostly depends on the honest dealings in every sphere.

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10. COMPARATIVE DEMOGRAPHY OF THE TRADITIONAL AND HINDUISED SAORA

In the present paper an attempt has been made to find out the basic demographic differences between the traditional Saora (Lanjia Saora) and the Hinduised Saora (Suddha Saora). For the purpose of the study, two traditional Saora villages and one Hinduised Saora village in R. Udayagiri Block of Ganjam District were selected. Door to door census along with interview technique was adopted for the collection of data during a period of 15 day stay from 15th to 31st December, 1982.

Before coming to the demographic analysis, a brief description of the villages and the tribe under study is necessary. Munising, the Hinduised Saora village is situated one kilometer North-West of Chheligada township. The State Highway No.-16 (Bhubaneswar-Chandragiri- Parlkhemundi) runs through the small township of Chheligada. Kulapathar, one of the traditional Saora villages is situated 3 kilometer North-West of Munishingh. Munigadihi, the other traditional Saora village is located at 3-kilometer South-West of Munishing is nearly 1800 feet above the sea level just as Chheligada. But the traditional Saora villages are above 2,000 feet amidst the dense forest. Locationally Munisingh, Kulapather and Munigadihi form almost a triangle.

The Saoras are one of the aboriginal tribes of Orissa. They are mainly distributed in Ganjam district. Koraput, Sambalpur and Bolangir districts also show the distribution of the Saora. Culturally speaking, the tribe at present has two broad divisions, the traditional and the accultured. The traditional ones are known as the Lanjia Saora. The acculturate Saoras are again of two types-the Hinduised and the Christianised. For the purpose of the present paper, we have discussed regarding the traditional (Lanjia) and the Hinduised (Suddha) Saora. It is only the Lanjia Saora who speak the traditional dialect which is

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included in Austro-Asiatic language of the Mundari Family. All the other group speak local Oriya fluently.

They have almost forgotten the traditional dialect. So far the Saoras of Munisigh are concerned, very few speak the traditional dialect, perticularly the aged people. They are so much Hinduised (the process might have taken a few generations) that the outsiders even confuse whether they belong to a tribe. It is a fact that they were wrongly included under the Hindu religion in 1971 Census for which they were deprived of the facilities, constitutionally provided by the Government to the tribal people, for a few years. They ultimately had to take the help of the court of law to avail of the facilites. Basically, Suddha Saoras are plain dwellers, stay closer to the other caste people and mainly live on agriculture. They also accept wage earning in lean seasons. Those who do not possess wet land, work as agricultural labourers in the nearby villages. Few of them go for wood cutting to the jungle and sell them in the Chheligada market. On the contrary, the Lanjia Saoras live in the hill tracks amidst dense forest away from the modern people. They are basically shifting cultivators and food gatherers. Very few of them accept wage earning.

The marriage and family pattern of the Suddha Saora is very much similar to that of the Hindu system. Out of 25 families 14 are joint familes and the rest 11 are nuclear families, whereas in both the traditional Saora village all the families are nuclear ones. Arranged marriage is common in case of Lanjia Saora. Sororate and Levirate are often practised. The system of polygamy which was found among the Lanjia Saora is now not so common and there is none in these two villages. The female age at marriage in case of Lanjia Saora is higher than that of the Suddha Saora. In case of Lanjia females it is 18years and 20 years in case Suddhas.

Suddha Saoras are more aware of the family planning norms. Economically they are better off than their counterparts. Educational standard is also higher in case of Suddha Saora. On the whole, the World view of Suddha Saora is wider than that of the Lanjia Saora.

With the above existing socio-economic and educational variations, how do the Lanjia and the Suddha Saora differ demographically have been discussed in the paper.

At the outset, population distribution by age and sex has been analysed. The population distribution (Table-1) gives an interesting picture.

Table-1 : Percentage distribution of population by age and sex

Age	Suddha Saora			Lanjia Saora		
group	Male	Female	Total	Male	Female	Total
00-04	8.05	9.40	17.45	7.55	6.60	14.15
05-09	6.71	7.38	14.09	7.55	5.66	13.21
10-14	5.37	6.71	12.08	6.60	4.70	11.32
15-19	6.04	5.37	11.41	5.66	4.72	10.38
20-24	4.03	5.37	9.40	5.66	3.77	9.34
25-29	4.03	4.70	8.72	4.72	2.83	7.55
30-34	4.03	2.68	6.71	0.94	2.83	3.77
35-39	2.68	1.34	4.03	3.77	2.83	6.60
40-44	1.34	0.67	2.01	3.77	2.83	6.60
45-49	1.34	1.34	2.68	3.77	1.89	5.66
50-54	1.34	2.68	4.03	2.83	0.94	2.83
55-59	1.34	1.34	2.68	1.89	0.94	2.83
60+	2.01	2.68	4.70	2.83	1.89	4.72
Total	48.22	51.68	(100)	57.55	42.45	(100)

The child population (0-4 years) in case of Suddha Saora is comparatively more than that of the Lanjia Saors, 43.62% and 38.68% respectively. But in all other categories the proportion of Lanjia Saora is more. In the fertile age group (seeing the reproductive capacity of the Saora we have taken 15-44 years as the fertile age group) the proportion of Lanjia Saora is 44.34% and that of the Suddha Saora is 42.28%. Again, in the economic active age group (15-59 years) the distributions are 56.66% among the Lanjia and 51.68% among the Suddha Saora. So far as the aged (60 years and above) distribution is concerned the proportion is almost the same in both the group. The above picture shows that the Suddha Saora has a younger population compared to the Lanjia Saora. Because of this distribution the dependency ratio is comparatively more among the Suddha Saora (Table-5).

As mentioned earlier, the Suddha Saoras show a higher rate of literacy compared to their Lanjia counterparts. It is noticed that over

24% Suddha are literates, whereas below 4% Lanjia are literates at the same period, Table-2.

Table-2 : Distribution Of Literates Among the Suddas & Lanjia

	Suddha Saora			Lanjia Saora		
Distribution	Male	Female	Total	Male	Female	Total
Literates	31	8	36	4	–	4
% to total population	20.81	3.36	24.16	3.37	–	3.77
%excluding0-4 age group	25.20	4.07	29.27	4.26	–	4.26

Further, no Linjia female is literate. However, over 3% Suddha females are literate. This speaks of the level of educational backwardness among the Lanjia Saora.

As we compare the fertile age group, the Lanjia Saora exhibits higher proportion whereas the child-woman ratio is comparatively low in case of the Lanjias (Table-6). The analysis of marital status (Table-3) shows that the proportion of currently married females in 15-44 age gruop is 71.4% in case of Lanjia and 76.7% in case of Suddha Saora.

Table-3 : Distribution of marital status of the Suddha and the Lanjia Saora in the fertile age group and above

Sudha Saora

Age	Unmarriad		Currently married		Widowed		Total	
group	Male	Female	Male	Female	Male	Female	Male	Female
15-44	11	5	22	23	-	2	33	30
	33.3	16.7						
45+	-	-	6(66.7)	5(41.7)	3(33.3)	7(58.3)	9	12
			21.4	18.0	77.8			
Total	11	5	28	28	3	9	42	42

Linjia Saora

Age	Unmarriad		Currently married		Widowed		Total	
group	Male	Female	Male	Female	Male	Female	Male	Female
15-44	11	4(19.1)	13(50.0)	15(71.4)	2(7.7)	2(9.5)	26	21
	72.3		65.0	75.0	28.6	66.7		
45+	-	-	7(58.3)	5(83.3)	5(41.7)	1(16.7)	12	06
			35.0	25.0	71.4	33.3		

Further, among the currently married females 75% in case of Lanjias and 82% in case of Suddha are in the fertile age group . In case of unmarried distribution, the proportion is comparatively more among the Lanjia Saroa in the same age group. So, either way we see, the vulnerable females (females responsible for the births) are comparatively low in proportion among the Lanjia Saora. The age at marriage is comparatively high among the Lanjia Saora. It is nearly 21 years for males and 19 years for females . But among the Suddha Saora it is nearly 20 years and 18 years respectively. The age at marriage among the Lanjias is high because of the following factors.

A. Since bride price is still practiced, the young men decide to marry after being capable to pay the required amount.

B. Elderly girls are preferred as brides because they would perform household work efficiently and would help better in the shifting cultivation.

In general, the socio-economic condition of the Lanjias is such that young men prefer elder brides. At times, the age of the bride is found to be equal or more than of the groom. Widow marriage is prevalent among the Lanjia Saora which is occasionally found among the Suddha Saora.

The widow distribution in Table-3 shows interesting features. In the fertile age group (15-44) the widows are more in proportion among the Lanjia Saroa, but in the aged group (45years and above), it is seen that the number of widowers are exceptionally more among the Lanjias. This interesting distribution speaks of the mortality differentials. The Lanjia females die more in number compared to the Suddha females whereas the Suddha males die more compared to Lanjia males. This is because of the fact the Lanjia females and the Suddha males are more exposed to risk, Table-4

Table-4 : Births and Deaths during Dec.'81-Dec.'82

Suddha Saora				Lanjia Saora			
Birth		Death		Birth		Death	
M	F	M	F	M	F	M	F
3	4(infant)	1	0	2	2(Infant)	0	1
-	-(Adult)	1	2	-	-(Adult)	1	1

The birth and death rated (Table-5) particularly the birth rates show remarkable difference. The birth and death rates are calculated taking into account the previous year's live births and deaths.

Table-5 : Distribution Of Demographic Measurements

Measurements	Suddha Saora	Lanjia Saora
Sex Ratio (SR) M/F	935	1356
Dependency Ratio (DR)	0.93	0.78
Crude Birth Rate (CBR)	47	47
Crude Death Rate (CDR)	27	38
Natural Growth Rate (NGR)	2%	1%
Infant Mortality Rate (IMR)	143	200

It is seen that birth rates of the Suddha and the Lanjas are 47 each per thousand population. If we compare the finer measurements of fertility, both the Suddha Saora and the Lanjia Saora show almost equal rates, Table-6

Table - 6 : Distribution of finer fertility measurements

Measurements	Suddh Saora	Lanjia Saora
General Fertility Rate(GFR)	233	238
General Material Fertility Rate (GMFR)	304	333
Total Fertility Rate (GFR)	6.8	6.9
Gross Reproduction Rate (GRR)	2.9	2.8
Child Woman Ratio (CWR) a-p0-4/f15-44	867	714
b-p5-9/f19-49	875	777

So, it is interesting to see and can safely be said that the Suddha females being closer to the modern family planning programmes and other medical facilities. Do not have lower fertility rates compared to the Lanjia.Four important factors are combinedly responsible for this:

A. Comparatively low age at marriage among the Suddha Saora

B. The Suddha Saora is better fed, particularly the expectant mothers get free food from the Mahila Samiti for which still births and infant deaths are comparatively less.

C. The proportion of joint families among the Suddha Saora is very high(56%) which indirectly contributes to the higher fertility rates.

D. Comparatively high proportion of fecund women among the Suddha.

So far as the death rate is concerned, it is higher among the Lanjias,Crude Death Rate (CDR) being 27 among the Suddhas and 38 among the Lanjias. The infant mortality rate(IMR) is also higher in case of Lanjia Saora, because Suddha Saoras now takes the advantage of the medical facilities, Taking into account the birth and death rates, the natural growth rate is calculated, It is seen that the growth rate of the Suddha Saora is 2% and that of the Lanjia is only 1% Further, the analysis of the finer measurements of fertility (Table-6) speaks of the higher growth rate among Suddha Saora compared to the Lanjia Saora.

All the above analysis shows that in spite of higher educational and economic standards, more exposure to the modern family planning programmes and medical facilities the Suddha Saoras are still in the beginning of the demographic transition. It is rather seen that the Lanjia Saoras having little exposure exhibit similar fertility rates compared to their advanced counterparts. So, we conclude by saying that mere exposure to modern facilities do not necessarily affect the demographic behavior.

11. INFANT MORTALITY, IDEAL FAMILY SIZE AND POPULATION GROWTH

All eyes of the demographers are set on the developing countries and particularly on India. Every seventh person in the world today is an Indian. With only 2.4 percent area in the nation holds as large as 15 percent of the world population. Such a sensational growth of population has a strong hold on the socio-economic situation and the process of human development. India rank second next to China as regards the size of population, according to 1981 Census. However, it over takes China in annual growth, which is 13.5 million compared to 11.5 million of China. The growth rate of India is 2.5 and that of China is 1.8 percent. The devastating growth rate started after 1960, the reason behind being the faster decline of death rates compared to the decline in the birth rates.

If we closely study this trend, we find every nation shows the decline of deaths first and decline of birth followed. These two are positively correlated. More particularly the decline in infant mortality has a direct impact on the decline rate. It is been proved that only when people are sufficiently aware of the facts that the newly born child has a fair chance to service then only, they think for family planning or family welfare. It is only by health services we can achieve our targets of family planning to some extend. Specifically, the expectant mothers and newly born babies are to be taken care of seriously. The rural sectors must be given priority as 80 percent of population is being shared by this sector.

Next, describing about the ideal family, we must clearly understand the concept of ideal family. It is a very relative term. Several factors are directly responsible for the norm of ideal family. It does not necessarily mean the number of the individuals nor the composition either. It is an ideal combination of the number, composition and the

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quality of the individuals. The concept for ideal again, depends on certain economic and cultural values of the society concerned. Hence, the concept of ideal family is a great paradox, more particularly in India context where diversity is the base. The concept of ideal family in an agricultural society varies from an industrialized society. It varies from Hindus to Muslims, from patriarchal society to matriarchal society, from urban to rural and from educated to illiterate. Further, the concept of ideal family is also related to the infant mortality rate.

Now let us discuss how infant mortality and the ideal family affect the population growth and structure. Take the case of infant mortality, in the beginning of 20th century the I.M.R. was more than 200 per thousand and the birth rate was nearly 50 per thousand but at present the I.M.R. is 114 and the birth rate is nearly 33 per thousand. Excluding statistical evidence, we can also take the help of the psychological aspect of the individuals. During the last decade I have been personally working on different aspects of demography in Orissa. During this period, I have conducted a number of interviews. Almost everybody has replied in a similar way when they were asked to justify the reason of having larger children. The only answer was the high death rate and particularly the infant death rate. The parents wish to have large number of children as a result of which a few will survive to look after the family property and to take care at the old ages. In the urban areas this feeling is different because of the less infant deaths. Thus, infant mortality directly affects the population growth. But the impact of the ideal family norms on population growth is more or less indirect as it is dependent. I have categorised the ideal families in five groups, basing on the public opinion. They are (i) Highly conscious. 1. Child, (ii) Orthodox but conscious-1 Son,(iii) Highly orthodox but conscious_2 children (preferably _1 son and 1daughter), (iv) Highly orthodox but little conscious _3 children (preferably-2 sons and1 daughter), (v) Highly orthodox but hardly conscious - 4/5 children (preferably 3 sons). The above are the urban categories where the literacy is above 65% but so far the rural population is concerned majority are

still highly orthodox; never think of quantitative planning of their family. As over 77% of the populations live in rural sector, they greatly influence the growth rates.

While concluding the present paper I must write a few words for the planners and administrators. At the outset, the emphasis should be given to improve the health and population education should reach every family. Second, the health and population education should be included in the syllabi from primary level. Third, emphasis on family welfare should be given more in rural sector. In the process if we neglect the urban sector, it would hardly matter. Because, urban people get wide scope to become self-conscious, even without any motivation they plan their families as much as they could. Fourth, educational and employment facilities for the females should be given priority in both the sectors as it has spectacular impact on population growth. Last but not the least, the incentives should be more and must reach the people growth. Last but not the least, the incentives should be more and must reach the people promptly. All the above will be successful only when the officers and the workers would become sincere and honest.

Table-1: The Birth Rate, D.R.,I.M.R., Average Life Span and Decadal G.R. of India since 1901-81.

Years	Birth Rate	Death rate	I.M.R.	Average life at birth	Decadal Growth Rate
1901-11	49.2	42.6	221	23	5.77
1911-21	48.1	47.2	213	20	0.31
1921-31	46.4	36.3	176	26	11.00
1931-41	45.2	31.2	168	31	14.23
1941-51	39.9	27.7	147	32	13.31
1951-61	40.9	22.0	146	41	21.64
1961-71	41.1	18.9	129	46	24.80
1971-81	35.2	14.7	124	52	24.75

Source: 1. Child Atlas of India, UNIGEF, 1981.

2. An Analysis of the Situation of Children in India, UNICEF, 1984.
3. Final Population Totals, Census of India, 1984.

Table-2: B.R.,D.R., I.M.R., D.G.R. and Female Literacy Rates of Major States 1971-81.

States	B.R.	D.R.	I.M.R.	D.G.R.	F.L.R	P.Q.L.I
A.P.	33.4	13.2	192	22.8	20.5	20.6
Assam	30.6	13.1	103	36.1	-	22.7
Bihar	31.1	12.1	-	23.9	13.6	24.0
Gujarat	35.8	12.7	113	27.2	32.3	24.0
Himachal Pradesh	27.3	11.8	87	22.5	31.4	-
Jammu and Kashmir	32.7	11.7	72	29.6	-	-
Karnataka	28.8	11.7	71	26.4	27.8	37.6
Kerala	25.2	7.0	40	19.0	64.5	100.0
M.P.	37.3	15.1	192	25.2	15.5	14.8
Maharashtra	26.9	10.3	75	24.4	35.1	57.6
Manipur	30.1	7.8	-	33.7	30.7	-
Meghalaya	32.0	10.2	-	31.3	29.3	-
Orissa	32.9	14.1	143	19.7	21.1	35.2
Punjab	29.4	11.6	89	23.0	34.1	61.6
Rajasthan	35.5	15.6	105	32.4	11.3	31.4
Tamandu	28.8	12.8	93	17.2	34.1	36.4
Tripura	28.8	11.6	-	32.8	31.6	-
U.P.	40.4	20.2	159	25.5	14.4	5.3
W.B.	32.1	11.7	-	23.9	30.3	45.8

*Physical Quality of Life Index (Developed by Prefemurs D.Moris)

(i) Literacy rates as % of population of 15 and above.
(ii) Life expectancy at age one.
(iii) I.M.R.

Sources: 1. Child Atlas of India, UNICEF, 1981.
2. An Analysis of the Situation of Children in India, UNICEF.
3. Final Population Totals, Census of India, 1981.

12. SON PREFERENCES IN ORISSA

(A case study among the Port and Dock Workers of Paradip)

Introduction:

Son preference in India is deep rooted in her cultural heritage. Evidences have been found that even in 6th Century B.C., people were conscious of the privileges of having a son. By the birth of a son, the mother gets a high social status and he saves the father from hell, according to Morison (1956) the desire of male progeny among the Hindus is very strong. A son is absolutely essentials for the performances of the traditional orthodox obsequies. The shastras (scared religious literatures) also stress the importance of the sons in the family. According to Prabhu (1963) the acquisitions of sons were considered to be the primary aim of the marriage. The sons rescue the soul of the deceased ancestors from the hell (into which they might fall). Prabhu referred to the ancient religious works which shows that the son called 'Prutra' because he saves the ancestors from the hell called 'Put '. This is the main reasons in india for the son preferences.

According to the various scholars, Dandekar (1963) Repetto(1972), Prathak (1974) Lahiri (1974) (1984), Krishnamurthy (1974) Sharma & Jian (1974) Mukherji (1978).Das (1984) and Daniel (1985), the preferences for sons over the daughters is due to the followings reasons:

i. Economics benefits

ii. Religious purposes

iii. Social customs

iv. Old age dependences

v. Burdens of daughters' marriages.

Manav, Vol- 3, No - 1, Page- 97-109, Bhubaneswar, 1988

However, both boys and girls have their respective roles at various stages in their life and hence some values have been attached to all of them. In India, as mentioned above the higher value placed upon the sons than the daughters are not only due to the socio-religious values but also due to their economics importance to the family. Normally a woman remains dependents throughout her life upon a male member of the household-upon her father till marriage, upon her husband during her life time and upon her son during the rest of the life. Further, the age-old custom of giving the dowry in marriage of the daughters also leads to develop apathy for daughters as they are treated as economic burdens on the parents in many societies.

Besides India, son preferences are also noticed in many Asiancountries. Stinner and Mader (1975) have shown that a son preference is distinct mostly among the rural Philipines. Lee (1982) has found that son preferences is strongest among the Korean parents Park (1983) have noticed has also obtained similar result in Korea. Arnoid and Zhaoxiang (1986) have noticed the prevalence of son preferences among the Chinese couples.

From the above studies it is revealed that the preference for sons among the couples seems to be one of the major reasons for their families being large. Because of such preferences of couple do not opt for accepting any kind of family planning methods until they have desired number of sons. The existence of son preferences has remarkable impact on the size and composition of the family.

In view of the above, the study of son preferences among the couples of Orissa has been conducted to find out the level of son preferences exist among them.

Scope of the paper:

In the present paper an attempt has been made up to examine the extent of son preference prevalent among the port and Dock Workers of Paradip, Orissa. The level of son preference has been found out from four important sources. Dash (1986,1987)

i. From the preferred family size and composition of all couples.

ii. From the desired additional children of the non-sterilized couples.

iii. From the related behavioral aspects of the parents.

In the present paper the author has utilized the first two sources for finding out the levels of son preferences. Besides examining the level of son preferences, the important socio-economic and demographic features of the workers have been described.

Data on son preference have been collected from 400 ever marriage male labourers by utilizing a structural schedule designed by the author. The wives of the respondents were also interviewed wherever necessary.

Paradip Port and the Workers:

Paradip is situated at 20-15-55 north Latitude and 80-40-35 East Longitude , 96 Kilometer East of Cuttack city , 210 nautical miles south of Calcutta port and 260 nautical miles North Visakhapatnam (Port Trust, 1984).

Workers at Paradip constitute the single largest group since the emergence of the port. For the purposes of the present study, the Port and Dock workers have been selected because they are recognized and enlisted by the Port authority and are managed according to the port trust rules and regulations.

Before finding out the son preferences of a group it is necessary to know their socio-economic and demographic profiles. The author has made a comprehensive study on the Paradip port labourers. According to him (Dash, 1987) the following are some important socio-economic and demographic observations among the port and Dock workers.

i. The number of single member families are in majority, about 28 percent. The mean family size at Paradip is 3 persons per family.

ii. As large as 98 percent of the respondents are Hindus.

iii. The 'Khandayat' caste respondents are in majority, 35 percent.

iv. The Scheduled Caste and Scheduled Tribe respondents are about 27 percent.

v. The higher caste, respondents such as 'Brahmins' and ' Kshyatrias' are the lowest being nearly 2percent each.

vi. The literacy level is as high as 93 percent among the respondents. But the rate of higher education (Matriculates and above) is very low, nearly 4 percent.

vii. The average family income is about rupees 760/-per month.

viii. The respondents are well within the age group of 20 to 59 years. The men age of the respondents is nearly 34 years.

ix. Most of the respondents are married. The ever-married proportion is as high as 93percent.

x. As large as 85 percent of the respondents are from Orissa, representing almost all the districts of the State.

Extent of Son Preference:

Son Preference from Preferred Family Size and Composition of the Port and Dock workers of Paradip preferred the three Children families as the ideal commensurate to their socio-economic conditions. Out of the total respondents, 60 percent preferred the above family size(Table-1). The next highest preference is for two children families, constitutes nearly 26 percent. About 10 percent respondents also preferred four children families.

As regards the preferred sex composition of the desired number of children, it indicates that about 59 percent of the respondents preferred two sons and one daughter (2S+1D) as the ideal composition. One son and one daughter compositions (1S+1D) occupy the second position, almost 25 percent respondents preferred this combination, Table-2 &3)

Interestingly there are only 2 percent respondents never desire daughters (In this case the maximum number is only two children i.e., sons), However, there are nearly 6percetn respondents who desire two daughters in the family along with similar or a greater number of sons. This implies that the workers have preference for both sons well as

daughters. But the preference for sons is more that of the children (1,3,5), the son preference s well marked. Whereas in case of even number of children the desire order (Table-3) it can be said that the preference for sons is higher.

Son Preference from Additional Children Desired.

The additional desire for children is a good indicator for finding the level of sex preference among the parents. Further, the desire of the parents has been divided into two groups (a) desire of additional with existing sons and (b) desire for additional children with existing daughter in the family. The analysis of the former group shows (Table-5) that respondents those have 'no sons' in the family, majority of them desire to have one son. Further, the respondents already having 'one son' family also desire to have 'one more son' irrespective of the sex of the child. The third desire in the same category is to have sex of the child. The third desire in the same category is to have 'one son' and 'one daughter'. In the above two categories, it is found that the desire to have 'one daughter' is almost absent. Whereas, as majority of the respondents having the 'two sons' in the family do not desire to have any further children. However , the next desire in this category is to have 'one daughter'. It indicates that the presence of 'two sons' in the family give the respondents the optimum satisfaction .Of course here the daughter in the family is not taken into consideration. In any case this speaks of the dominance of the son preference.

Desire for additional children with exiting daughter in the family would justify the above more clearly . The distribution of respondents by the desire for additional children with the daughter in the family is given in table-6. It reveals that the daughter of the majority respondents

, having 'no daughter; in the family desire to have 'One Child' .The next group of respondent desire to have 'One son and one daughter' whereas a very low proportion have 'one son and one daughter' whereas a very low proportion of respondent in this category desire to have 'One daughter' . Further, the respondents having 'One daughter' in the family hardly desire to have the second daughter. This

shows that they have the daughter preference but the optimum number is 'One daughter.

The above analysis clearly speaks of the dominance of son preference among the respondents.

Reasons for Son preference

It is seen from the previous analysis that there is a preference for both sexes, but the level of son preference is comparatively high. The respondents were asked about the various reason for their 'son' as well as 'daughter' preference. The various responses show (Table-4) that the majority desire for a son because of carrying the family is nearly 22 percent. About 26 percent of the respondents stated multiple reasons for son preference. Whereas, a majority of the respondents desire two sons and one daughter for an ideal family composition.

Conclusion:

The analysis of the preferred family size and composition and the additional children desired clearly reveal that both sons and daughter are preferred by the port and Dock workers. However, the preference of sons is comparatively higher than that of daughters. Almost in all preferred compositions, the respondents desire at least the presence of one daughter, but in majority of the cases the desire for sons outnumbered the daughters. A large proportion of the respondents wanted their family size to be five comprising of two sons and one daughter (2s + 1D). By and large the cause of the son preference is to carry the family line.

This study is however, the only one of its kind among the industrial sectors of Orissa. So, the finding will be very much importance to the welfare officers form improving the status of women in such sectors. The finding will be an equal importance to the family planning cells for identifying the couples those have completed the desired family composition and motivating them for acceptance of permanent family planning methods. While concluding the author suggest extensive studies

on son preference in Orissa, the results of which would certainly help to the social scientist and planners for promoting the status of women as well as for limiting the family size.

Table-1 : Distribution of Respondants by Ideal Family size and preferred Number of Children.

Ideal Family	Preferred Children	Respondants	Percentage
3	1	2	0.53
4	2	97	25.87
5	3	225	60.00
6	4	39	10.40
7+	5+	12	3.20
Total Respondants		375	100.00

*Mean Preferred Family Size-5
*25 Workers did not respond.

Table-2: Distribution of Respondants by number and Composition of children.

Preferred Compposition	One Child	Two Children	Three Children	Four Children	Five Children	Total
1.Child	1(0.3)	_	_	_	_	0(0.3)
1 Son	1(0.3)	_	_	_	_	1(0.3)
2 Sons	_	6(1.7)	_	_	_	6(1.7)
1S+1D	_	88(44.9)	_	_	_	88(24.9)
2S+1D	_	_	208(58.8)	_	_	208(58.8)
2S+2D	_	_	_	10(2.8)	_	10(2.8)
3S+1D	_	_	_	28(7.9)	_	28(7.9)
3S+2D	_	_	_	_	22(3.5)	12(3.5)
Total	2(0.6)	94(26.6)	208(58.8)	38(10.7)	12(3.5)	354(100)

*466 workers did not respond
*Figures in parenthesis indicate percentage.

Table-3 : **Distribution of Respondents by Preferred Composition in Rank Order.**

Rank Order	Preferred Compositions	Respondents	Percentage
1	2S+1D	208	58.9
2	1S+1D	88	24.9
3	3S+1D	28	7.9
4	3S+2D	12	3.5
5	2S+2D	10	2.8
6	2S+0D	6	1.7
7	1S+0D	1	0.3
8	No preference	1	0.3

Source- Table number-2

Table- 4: Distribution of respondents by Reasons for son preference.

Sl. No.	Reasons for son preference	Respondents	Percentage
1.	Carrying family line	152	40.11
2.	Financial support	83	21.90
3.	Socio Religious	27	7.12
4.	Psychological	2	0.53
5.	Old age dependance	16	4.22
6.	Multiple factors	99	26.12
	Total	379	100

* 21 workers did not respond.

Table - 5: Distribution of Respondents by the desire for additional children according to their number of surviving sons.

Number of surviving sons	Additional children desired							
	1 Ch.	1 S	1 D	1 S+ 1 D	2S	Any other	No child	Total
0	3 (1.3)	44 (18.9)	0	0	13 (5.6)	0	2 (0.9)	62 (26.7)
1	24 (10.3)	39 (16.8)	1 (0.4)	19 (8.2)	1 (0.4)	1 (0.4)	16 (6.9)	101 (43.5)
2	4 (1.7)	1 (0.4)	6 (2.6)	0	0	0	39 (16.8)	50 (21.6)
3	0	0	3 (1.3)	0	0	0	12 (5.2)	15 (6.5)
4+	0	0	0	0	0	0	4 (1.7)	4 (1.7)
Total	31 (13.4)	84 (36.2)	10 (4.3)	19 (8.2)	14 (6.0)	1 (0.4)	73 (31.5)	232 (100)

- 41 Children workers were excluded.
- 127 workers did not respond.
- Figures in Parenthesis indicate percentage.

Table-6: Distribution of Respondents by the desire for additional children according to their number of surviving daughters.

Number of surviving Daughters	Desire for additional children							
	1 Ch	1S	1 D 1D	1S+	2S	Any other	No child	Total
0	24 (10.3)	5 (2.1)	9 (3.9)	16 (6.9)	4 (1.7)	1 (0.4)	8 (3.5)	67 (28.9)
1	6 (2.6)	55 (23.7)	1 (0.4)	3 (1.3)	10 (4.3)	0	24 (10.4)	99 (42.7)
2	1 (0.4)	20 (8.6)	0	0	0	0	30 (12.9)	51 (52.0)
3	0	3 (1.3)	0	0	0	0	9 (3.9)	12 (5.2)
4+	0	1 (0.4)	0	0	0	0	2 (0.9)	3 (1.3)
Total	31 (13.4)	84 (36.2)	10 (4.3)	19 (8.2)	14 (6.0)	1 (0.4)	73 (31.5)	232 (100)

Figures in the parenthesis indicate percentage.

13. SOCIO-ECONOMIC AND DEMOGRAPHIC PROFILE OF THE LANJIA SAORA OF ORISSA

The Saoras are one of the primordial tribal groups of Orissa They are widely distributed throughout Orissa, Bihar, Madhya Pradesh and West Bengal. However, they are mainly concentrated in Gajapati District (formerly in Ganjam) and parts of Koraput district of Orissa. The Saoras are also known as the Savaras, Sauras and the Sabaras, but all of them belong to one category and have their racial affinity to the proto-Australoids. Socio-culturally speaking, there are three broad sections of the community, namely the Lanjia Saora, the Suddha Saora and the Christian Saora.Lanjia Saoras are the traditional group and are declared as primitive by the Government. The Suddha and Christian Saoras are the accultured groups, the former being the Hinduized and the latter being Christianized. They normally inhabit in the plains. However, the Lanjias prefer to stay in highlands or "maalas" for which they are otherwise known as Maala Saora. The Lanjia Saora is the largest group among the three and still possess the traditional Saora language and Saora way of life.

The present paper highlights the socio-economic and demographic scenario of the Lanjia Saora. A comprehensive empirical study was undertaken by 12 selected Lanjia villages of Mohana block

. All these villages are situated within a radius of 13 kilometers from Chandragiri.

Socially, Saoras are unique because they do not have clan or sib organization which is a common feature among most of the tribal communities in the country. However, their social structure revolves around the Birinda(An extended family), the membership is limited to four or five generation. The Birinda members stand for one another as

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blood brothers, it resembles the Hindu Kutumba and the minimal lineage of the Neurs of Africa . The remarkable feature among the Saora is that a woman from birth to death belongs to her father's Birinda, even it does not change after her marriage. Thus, after her death Birinda members may claim to perform the funeral rites which is accepted by her husband's family. Normally the Birinda members live in one village. In rare cases some members may migrate to another village, but still then they retain the membership of their Birinda and after their death the bones etc. are brought to their original villages for rituals .As regards marriage, the monogamous form of marriage is widely accepted by the Saoras, but polygynous marriages are not uncommon. In support of the later the Saoras say that more wives help in many ways and thus, increase the economic condition of the family.

The economic life of the Saoras primarily rests on the shifting cultivation which they practice to al large extent. Terrace and plain cultivation are also practiced which is gradually increasing, partly because of the less productivity of shifting cultivation and partly due to Governments motivation. The other types of economic pursuits which they also follow for their subsistence are hunting, fishing and collection of the forest produce throughout the year. The Saoras also grow pumpkin, cucumber, bean, maize, ground and tobacco in their kitchen gardens. Very low proportion of Saoras do engage themselves in other economic pursuits. Keeping in view of the above socio-cultural background of the Saoras, the present Socio-economic and demographic study has been undertaken.

Study Design :

Data were collected from 12 Lanjia Saora villages. Total enumeration method was adopted for the collection of data. Three different types of structured schedules (Household census schedules, Schedule for marriage and fertility and Schedule for disease and mortality) were canvassed. Observation technique particularly , non-participant type, was also followed as should be for any empirical study. The villages

were covered both during morning from 7-12 A.M .and afternoon from 2-6 P.M. The interview was also undertaken at their work sites while necessary. The entire data collection was completed during one month stay at Chandragiri.

Family size and Composition:

As large as 218 Lanjia households have been covered. The average household size(the size of the family and household are the same in case of Lanjia Saora) is found to be 4.8, Table-1.

Table - 1 : Distribution of population by household size

Household size	1	2	3	4	5	6	7	8	9	Total
Distribution of the Household	0	9	42	48	56	29	16	13	5	218
TotalPopulation	0	18	126	192	280	174	112	104	45	1051

Average household size : 4.8

It is found that maximum distribution is noticed in the 5 number household and lowest distribution is found in 2 members households. As started earlier, the average household size is calculated to be 4.8 members. This figure is slightly less than their preferred (ideal) family size which is 5. The ideal family composition as preferred by them, is two sons and only one daughter including the parents. However, children born to every family will show the clear picture of the actual family size and composition , discussed later.

Population Structure and Composition:

The population structure and composition of the selected villages show an interesting feature .It is noticed that the proportion of females is more than males,Table-2.

Table-2 : Distribution of population by age and sex

Age group	Male	%	Female	%	Total	%
00-04	77	7.33	70	6.66	147	13.99
05-09	82	9.80	64	8.94	176	16.75
10-14	55	5.23	55	5.23	110	10.47
15-19	42	4.00	42	4.00	84	7.49
20-24	45	4.28	64	6.08	109	10.37
25-29	65	6.18	59	5.61	124	11.80
30-34	43	4.10	28	2.66	71	6.76
35-39	37	3.52	33	3.13	70	6.66
40-44	27	2.56	24	2.28	51	4.85
45-49	22	2.09	20	1.90	42	4.00
50-54	12	1.14	12	1.14	24	2.28
55-59	6	0.57	12	1.14	18	1.71
60+	10	0.95	15	1.42	25	2.38
Total	523	49.76	528	50.24	1051	100

(Average age,Male-22.1,Female-21.4)

The sex ratio is 990 males per 1000 females whereas the state sex ratio is 1029 males per 1000 females. The proportion of child population, economic active population and aged population are 41.2%,56.4% and 2.4% respectively .The average age of population (male-22.1 and female-21.4%) shows that the Lanjia Soaras have a young population. Population pyramid also gives a similar shape.

Although the sex ratio favors the females, it is noticed that in the fecund age group (reproductive age group) i.e., 15 to 44 years the

Table - 3

Distribution of Population By educational standards

Age	Illiterate		Below L.P		L.P		U.P		M. E		HSC		Intermediate		Total Litra.		Grand Total	
Group	M.	F.	M.	F	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
05-09	71	89	9	4	2	1	-	-	-	-	-	-	-	-	11	5	82	94
10-14	19	41	14	5	9	4	7	2	6	3	-	-	-	-	36	14	55	55
15-19	6	32	16	4	7	2	3	1	4	1	5	2	1	-	36	10	42	42
20-24	15	58	19	6	4	-	2	-	2	-	3	-	-	-	36	4	45	64
25-29	48	56	12	3	4	-	-	-	-	-	1	-	-	-	17	3	65	59
30-34	29	45	11	3	-	-	-	-	-	-	-	-	-	-	14	3	43	28
35-39	22	31	5	2	-	-	-	-	-	-	-	-	-	-	5	2	37	33
40-44	24	24	3	-	-	-	-	-	-	-	-	-	-	-	3	-	27	24
45-49	22	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	20
50-54	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
55-59	6	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	12
60+	10	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	15
Total	294	415	89	27	29	07	12	03	12	04	09	02	01	-	152	42	446	458
%	65.9	90.6	20	5.9	6.5	1.5	3.7	0.7	2.7	0.9	2	0.4	0.2	-	34	9.4	100	100

(Children below 5 are excluded)

percentage of females is comparatively low. This shows that deaths during child bearing stage is higher among the females. The lower percentage of child population in the first group (0-4) indicates the declines of birth rates as well as higher infant and child mortality rates during last four to five years.

Educational Standards:

Educational is an important factor of an individual for determining his/her Socio-economic status, it is marked that there are only 30% literates among the population of the sample villages whereas the total literates in the state is 49 percent at present. The data in table-3 indicate that so far education is concerned the Lanjias are lagging far behind in comparison to the main stream.

The table reveals that the proportion of illiterates is very high, particularly for females, in all categories. However, males show increasingly interest in receiving education. The total literates are among males is 34% and 9% among females whereas the total literates in Orissa is 63% males and 35% females .Moreover, the Lanjia literacy also include the person those who know their signature only. There are as large as 20% males and 6% females know their signature only, with little knowledge of the alphabets .This is the outcome of the introduction of non-formal education by the Govt. There are only 2.4% matriculates in the entire population, (2% males and 0.4% females). Only 0.2% is found educated up to the intermediate level.

Occupational Status :

It is marked that the majority of the population are engaged in cultivation. Terrace and plain cultivators are common among the plain Lanjias .The number of wage earners are the least, Table-4.

Table-4: Distribution of workers by broad age groups and occupational categories

Name of	Below 15		15-59		69 & above		Total	
Occupation	M	F	M	F	M	F	M	F
Cultivation	31	27	276	277	4	5	311	309
Wage earner	2	…	3	4	…	2	10	6
Govt. service	…	1	…	…	1	…	…	…
Private service	…	…	…	…	…	…	…	…
Business	…	…	4	…	…	…	4	…
Total worker	33	27	289	281	4	7	326	315
	15.42	12.33	96.66	95.57	40.00	48.67	62.33	59.66
Total population	214	219	299	294	10	15	523	528

It is good to note that more than 95% population in the economics active groups and over 40% in the aged grouped are engaged in various economics activities .Further more than 12% in the child population are also working . However, it is interesting to mark that comparatively more than girls in the 0-14 age groups and more aged group and aged more women than men in the 60+ age groups are active workers .Total workers are more or less 60% among the Lanjia population.

Income and Expenditure:

Income and expenditure of the family from all sources have been calculated and categorized by monthly basis .The average monthly family income is found to be Rs.506/- and average monthly expenditure is Rs.526/- , Table-5 and Table -6 it is noticed that the higher family Size is associated with higher income and expenditure. Chi-square tests show such associations are significant. However, from the chi-square tests it is noticed that expenditures more associated with family size than income.

Table-5 : Distribution of monthly income by family size

Family	Family size									
income	1	2	3	4	5	6	7	8	9+	Total
Below-0250	-	2	6	8	-	-	-	-	-	16
0251 - 0500	-	7	20	23	39	19	6	2	-	116
0501- 0750	-	-	13	11	10	7	6	6	-	53
0751 - 1000	-	-	2	5	7	3	3	2	4	26
1001 - 1250	-	-	1	-	-	-	1	1	1	4
1251 - 1500	-	-	-	1	-	-	-	1	-	2
1501+	-	-	-	-	-	-	-	1	-	1
Total	-	9	42	48	56	29	16	13	5	218

(Average monthly income is Rs.506/- per family.)

The table shows below the chi-square value (5.19) of the family size and income of the Lanjias by the help of the data from table-5

Income	Family Size		Total
Level	Below 5	5 & above	family
Below 750/-	90	95	185
	84	101	
750 & above	9	24	33
	15	18	
Total	99	119	218

(The table value with 1 degree of freedom is 3.84 and the observe value i.e 5.19)

Expenditure	Family Size		Total
Level	Below 5	5 & above	family
Below 750/-	89	94	183
	83	100	
750 & above	10	25	35
	16	19	
Total	99	119	218

Table - 6 : Distribution of monthly expenditure by family size

Family	Family Size									
Income	1	2	3	4	5	6	7	8	9+	Total
Below 0250	-	4	3	1	-	-	-	-	-	8
0251 - 0500	-	4	22	28	31	14	7	3	2	111
0501 - 0750	-	1	14	12	14	10	7	5	1	64
0751 - 1000	-	-	1	1	-	-	-	1	1	30
1001 - 1250	-	-	1	1	-	-	-	1	1	4
1251 - 1500	-	-	-	1	-	-	-	-	-	1
1501+	-	-	-	-	-	-	-	-	-	-
Total	-	9	42	48	56	29	16	13	5	218

(Average monthly expenditure is Rs. 526/-)

The table in previous page (109) shows the chi-square value (4.94) of the family size and expenditure of the Lanjias by the help of the data from Table-6.

Marital Status :

In any demographic study material status provides the basic information regarding the vulnerable group responsible for fertility. Table-7 clearly states the marital status of the population of the selected Lanjia Saora villages.

The above table states an interesting picture about the marital status. It shows that no marriages below 15 years of age are practiced among Lanjia saoras at present. This is further confirmed from age at first marriage (Table-8).As the above table shows, there are nearly 57% Lanjia males and 52% Lanjia females are unmarried. Abou 38% is currently married. The widow's, divorced & separated female constitute nearly 9%. The corresponding figure for the males is only 5%. This reveals that the windowed, divorced and separated males marry in a large number compared to the females. This is also proved when we see the disparity between the ever-married men and women. However, the slight imbalance between the currently married men and women is

due to the presence of (four) polygamous families. This shows the prevalence of polygyny among the Lanjia Saoras of Gajapati district. Material status of the reproductive women shows that 72% of the fecund women are currently married, 23% are unmarried and the rest 5% are widowed, divorced and separated.

Table - 7 : Distribution of population by marital status and age

Age	Marital status											
group	Unmarried		Married		widowed		Div/Sep		EverMarried		Total	
Below15	M	F	M	F	M	F	M	F	M	F	M	F
15 -19	214	219	-	-	-	-	-	-	-	-	214	219
20 - 24	42	37	-	5	-	-	-	-	-	5	42	42
25-29	11	1	53	57	-	-	1	1	54	58	65	59
30 - 34	3	-	38	25	-	1	2	2	40	28	43	28
35 - 39	-	-	35	29	2	2	-	2	37	33	37	33
40 - 44	-	-	23	19	4	4	-	1	27	24	27	24
45 - 49	-	-	16	10	6	8	-	2	22	20	22	20
50+	-	-	18	15	10	19	-	5	28	39	28	39
Total	296	276	201	205	22	34	4	13	227	250	523	528
	56.6	52.3	38.4	38.8	4.2	6.4	0.8	2.5	43.4	47.7		

(4 males have accepted two wives - cases of polygyny)

Age at Marriage :

Age at marriage is another important social as well as demographic factor which influences the child bearing period and consequently the fertility of the group. The average age at first marriage of the Lanjia Saoras is 18.5 years for the females and 22.7 years for the males, see Table-8, it is interesting to see that the age at first marriage of both males and females among the Lanjias are above the government recommended ages of marriage, i.e. 18 years for females and 21 years for the males.

It is evident from the above table that maximum number of females marry between 15-19 years of age (58.7%) and maximum

number of males marry between 20-24 years of age (66.1%).Marriage below 15 years of age are noticed among the females of the higher age groups. Almost all females prefer to marry before 25 years of age and that of males before 30 years of age.

Table-8 : Distribution of ever married population by age at first Marriage

Present age	Age at first marriage										Total	
	Below15		15 -19		20 - 24		25 - 29		30+			
	M	F	M	F	M	F	M	F	M	F	M	F
Below15	-	-	-	-	-	-	-	-	-	-		
15-19	-	-	-	5	-	-	-	-	-	-	-	5
20-24	-	-	9	33	10	12	-	-	-	-	19	45
25-29	-	-	4	34	47	24	3	-	-	-	54	58
30-34	-	-	3	17	33	11	3	-	1	-	40	28
35-39	-	-	6	19	18	14	18	-	-	-	37	33
40-44	1	2	3	15	16	6	7	1	-	-	27	24
45-49	-	3	4	14	12	3	6	-	-	-	22	20
50+	-	13	4	11	14	15	9	-	1	-	28	29
Total	1	18	33	148	150	85	41	1	2	-	227	252
%	0.4	7.1	14.5	58.7	66.1	33.7	18.1	0.4	0.9	-	100	100

(Average age at first marriage male - 22.7 and female - 18.5 years)

The age at marriage for both male and female is comparatively higher to the corresponding ages of the general population of the state. This higher age at marriage is due to the cultural practices of the Lanjias. The Lanjia Women in their society work hard, as result of this, the parents do not want their daughters to get married soon. Further, the prevalence of bride price is also responsible for this slightly higher age at marriage of the females.

Age of women at first child birth:

Age of women at first child reflects are actual age at which the females enter to motherhood or the eventual entry of females into the actual fertility performance.

Table-9: Distribution of ever married by the age at marriage and the gap between first child birth

Age at marriage	Gap between age at marriage and first child birth						Total ever married	
	Below1yr	1-2	2-3	3-4	4-5	8yr	NoRres	Women
Below15	1	2	3	5	3	2	2	18
15-19	25	47	26	14	9	8	19	148
20-24	17	28	20	7	6	4	3	85
25-29	1	-	-	-	-	-	-	1
30+	-	-	-	-	-	-	-	-
Total	44	77	49	26	18	14	24	252
17.46	30.56	19.44	10.32	7.14	5.56	9.52		

(Average gap : 1.97 years. Np response women are excluded from the average calculation)

The above data reveals that the average gap between the age at marriage and the age at the first child birth is nearly 2 years. It is also marked that the higher intervals are found to be associated with the lower age at marriage, chi-square value shows this association to be very significant.

The below table Shows the chi-square value (13.2) of the gap between age at marriage and first child birth by the help of the data from Table-9

Age marriage	**Below 3 years**	**above 3 years**	**Total**
-15	6	10	16
	(12)	(4)	
15-19	98	31	129
	(96)	(33)	
19+	66	17	83
	62	21	
Total	170	58	228

(With 1 degree of freedom the table value of chi-Square is 3.84 and the observed value is 13.2)

It is also found that 9.5% of the ever-married couples are childless at the time of interview, those are grouped under the no response column. The highest distribution (36.56%) is found between 1 to 2 years of gap and the lowest 5.56% respondents experienced their first child after a gap of 5 years from marriage. About 17% of women have their first child after one year of marriage .Quite obviously the lower gap is marked among the women those marry at higher ages.

Open Birth Interval :

It is the interval between the present age and the age at the last child .This is also another indicator of actual reproductive span of the females. Open birth intervals, also speaks of the use of family planning methods among the couples.

Table-10: Distribution of ever married Women by the Open Birth Interval and present age

Percentage age	open birth interval						Total ever married
	0-3	4-7	8-11	12-15	15+	No Res	women
15-19	3	-	-	-	-	2	5
20-24	34	2	-	-	-	9	45
25-29	36	17	3	-	-	2	58
30-34	17	7	3	1	-	-	28
35-39	11	7	5	6	-	4	33
40-44	4	6	7	2	3	2	24
45+	-	8	11	20	15	5	59
Total	105	47	29	29	8	24	252
%	41.67	18.65	11.51	11.51	7.14	9.52	100

(Average open birth interval is 6 years. No response women are excluded from the average calculations).

It is noticed that a large number, nearly 42% of young couples had their last birth within 3 years.18.05% of couple experienced their last birth between 4 to 7 years. As large as 7.14% had their last birth after 15 years. The average open birth interval is calculated to be 6

years. This speaks of the use of family planning methods either for spacing or stopping child birth.

Age at last child birth:

This shows the age when the women have actually completed their child bearing activities. It is also important to know the actual fecund period of women in a community. The Saora age at last child birth is given ,Table-11

Table-11 : Distribution of age at last child birth of the women 45 years and above by children ever born

Children ever born	age at last child birth							Total ever married women
	15-19	20-24	25-29	30-34	35-39	40-44	No Res	
1	-	-	-	-	-	-	-	
2	-	-	1	-	-	1	-	2
3	-	-	2	-	-	2	-	4
4	-	-	7	2	3	1	-	13
5	-	-	2	4	7	2	-	15
6	-	-	4	4	5	1	-	14
7+	-	-	-	1	4	1	-	6
N.R	-	-	-	-	-	-	5	5
Total	-	-	16	11	19	8	5	59

(Average age at last child birth is 34 years. Average children born : 5 for the calculation of average, no response women are excluded)

The average age at which Lanjira women had her last child birth is found to be 34 years and the average children born during this period is 5 live births. It is Interesting to observe that there is a reduction of actual fecund period by almost 10 years. Because , on an average they begin their fertility schedule by 18.5 years of age (see age at marriage). Agarwal (1973) has started that married woman on an average miss 10 to 13 years of effective fertile period due to widowhood .But in the case of Lanjia Saora beside widowhood, other factors responsible

for this loss of fecund period are the use of terminal F.P. methods and malnutrition are equally important for lessening the fecund period, Dash1979.

Children Born Last Year:

Fertility history was known from the previous table, whereas this will give the current fertility picture of Lanjia Saora .From this data a good number of Fertility measure can be obtained.

Table-12: Age Specific Fertility

Fecund AgeGroup	No. of women	No. of married women	Children born last year M	F	T	ASFR	ASMFR
15-19	42	5	1	1	2	.048	.400
20-24	64	45	9	8	17	.260	.378
25-29	59	57	6	11	17	.280	.298
30-34	28	25	4	2	6	.214	.240
35-39	33	29	3	1	4	.121	.138
40-44	24	19	2	0	2	.083	.105
Total	250	180	25	23	48	1.014	1.559

Measurement of Fertility:

From the above table the following fertility measurement are calculated.

A. **Crude Birth Rate(CBR) :** It is usually calculated by relating the total live births during the years and the population of that area expressed at the rate for one thousand population .The total live births of the present study are 48 in number (25 boys and 23 girls), Table-12 .The CBR is calculated to be 46 per 1000 population.

B. **General Fertility Rate (GFR):** It is the ratio of total yearly live births to be fecund population (15-44) and also expressed per 1000 population. The GFR of the present study is 192.

C. General Marital Fertility Rate (GMFR): The married females of 15-44 years are taken into consideration. The GMFR of the Lanjias is 267.

D. Age Specific Fertility Rate (ASFR) : This is the ratio of births by age of the mother to the women in that age group.

E. Total Fertility Rate (TFR): It is the sum total of the age specific fertility rate (multiplied by the size of the class interval). The TFR of Lanjia is 5.1 and TMFR is 7.8

F. Gross Reproduction Rate (GRR): To calculate GRR , only female births are taken into consideration,(GRR=TFR multiplied by number of female ratio).The GRR of the Lanjia Saora is calculated to 2.43 .The net reproduction Rate(NRR) among the Lanjia would be 2 per women.

G. Child Women Ratio(CWR): It is the number of children under 5 years of age per 1000 women of fecund age group (15-44). The CWR is (pop : 0-4/W-popn : 15-44 multiplied by 1000)588 per 1000 females in the present study

Fertility Analysis:

Birth rate of the Lanjias is found to be very high, nearly 46 births per thousand population (Orissa-30). The general fertility rate(GFR) and the general marital fertility rate (GMFR) are 192 and 267 respectively, this is also high as compared to the state figure e.g., 123 and 153 respectively. Similarly, the total fertility rate (TFR) and total martial fertility rate (TMFR) among the Lanjias as 5.1 and 7.8 respectively , the corresponding figures of the states are 4.0 and 5.4 respectively. The gross reproduction rate (GRR), one of the finest measurements of fertility the Lanjia is 2.4 (Orissa-1.9). All the above direct measurement of fertility reveals that Lanjias Saora has a high fertility schedule. Child women ratio(CWR),one of the indirect measurements of fertility (Lanjias-588 & Orissa-500) also shows that the Lanjias are more fertile compared to the total population of the state.

Acceptance of family Planning Methods:

Family planning does not mean merely birth control, it is rather the real welfare of the family. However, the Saoras are more familiar to birth control .People know about the various methods of family planning through mass media , local health centers and by the help of the community workers . Above all, they discuss among themselves before taking any decision regarding of family planning.

Table-13: Distribution of acceptors by family planning methods and the age of wife at first use

Age of wife at the time of 1st use	Method of family planning practices					
	C.C	I.U.D	Sterilization		Traditional	Total
			Vasectomy	Tubectomy		
15-19	-	-	-	-	-	-
20-24	3	4	-	-	-	7
25-29	2	3	8	6	-	19
30-34	-	1	10	8	2	21
35-39	-	1	6	7	1	15
40+-	-	-	-	4	4	
Total	5	9	24	21	7	66
%	1.98	2.38	9.52	8.33	2.73	26.19

(Couple protection rate is 21.11%.For the calculation of this rate , the people using tradition methods have been excluded)

It is observed from the table that only 66(26.19%) couples have accepted the family planning methods out of the total 252 ever married women. A majority of the acceptors have first used F.P.Methods when the wives between 25 to 40 years of age .However, about 21% couples are effectively protected during the time of study. This is a low rate compared to the state figure which was 30% during 1985. It is marked that Lanjias are using some traditional methods of birth control. This requires a comprehensive study to know details about the traditional fertility regulation.

Disease and Death:

The Scientific study of the disease is known epidemiology. In the present paper the common disease among the people and how do they combat with them have been described. Current deaths, particularly deaths during last year, have been collected for the calculation of current death rates.

Table-14: Distribution of common diseases found among the Lanjia Saora

Months	Name of the disease	
Jan-March	Malaria, Asthma	Skin disease, respiratory
Viral fever	trouble	
April-June	Malaria, Eye disease	Dysentery Skin disease
July-Sept	Malaria, Diarrhea	cold fever (influenza)
	cold & cough	
Oct-Dec	Malaria, Asthma	
	Respiratory trouble	

Source : Chandragiri Health Centre.

Besides the above diseases, tuberculosis, typhoid, paratyphoid, chickenpox, missiles etc. are also found among the people of this area. Saoras normally refer to their village medicine men and the priests for their common ailments. When things are beyond the control of the traditional medicine man, they come to the primary health center (P.H.C) located at Chandragiri. It is observed during data collection that people are not so much conscious of their health and sanitation.

Further, Table=15 reflects deaths occurred among the Lanjias during last one year of data collection. Crude death rate (CDR) calculated from the above data is 26.6 per 1000 population. This figure is more than double of the corresponding figure of the state i.e., 12.2. Interestingly it is observed that more males died last year than females. It is also found that the infant deaths are greater in number. The infant mortality rate (IMR) is 229 per 1000 live births. This rate is an important contributing factor for the for the high death rate and indirectly for high birth rate among the Lanjia Saoras.

Table - 15 : Distribution of deaths during last year by age and sex

Age of the Diseased	No of Deaths Male	Female	Total
Infants below 1 yr.	5	6	11
1-4	2	2	4
5-9	1	-	1
10-14	-	-	-
15-19	-	-	-
20-24	-	1	1
25-29	-	1	1
30-34	1	1	2
35-39	-	-	-
40-44	1	-	1
45-49	-	-	-
50-54	-	-	-
55-59	2	1	3
60+	3	1	4
Total	15	13	38

Summary and conclusion :

The present paper highlights socio-economic and demographic profile of the Lanjia Saoras, otherwise known as Malua Saoras. This study was undertaken in 12 selected villages of Mohana block. Total enumeration method was adopted for the collection of data, using three types of structured schedules. Interview and observation techniques were also adhered to get the additional information.

As large as 218 Lanjia households have been surveyed and the average household size is found to be 4.8. It is also noticed that the maximum distribution in 5 member households and lowest being in 2 member households.

The average age of the population is male 22.1 years and female21.4 years. The economic active population is 56.4 the aged population is very low i.e. 2.4% and child population is 41.2 %. The sex ratio is 990 males per 1000 females. This sex ratio favours the females.

The proportion of illiterates among Lanjia males is 66 percent and Females is 90.6 percent, which is very high. The literate in the total population is only 30 percent. The so-called rate of literacy has increased to this extent because 20 percent males and 6 percent females, who are educated by the introduction of non-formal education by the government, are included in literate category.

Cultivation is the primary occupation of Lanjias. About 97 percent of males and 96 percent of females in the economic active group are engaged in various economic activities. Further, nearly 40 percent males and 49 percent females in the aged groups are engaged in various economic activities. Average monthly family income is Rs. 506/- and average monthly expenditure is Rs.526/-. It is found from the chi-squre tests that the higher family size is associated with higher income and expenditure, this association is almost significant.

It is important to note that marriage below 15 years of age is not practiced now-a-days. The average age at first marriage of age the Saoras is 18.5 years for the females and 52 percent of the females are unmarried. The average gap between the age at marriage and the age at first child birth is 2 years. Again, the higher interval is found to be associated with the lower age at marriage which is significant. The average open birth interval is calculated to be 6 years. The average age at which a Lanjia woman had her last child birth is found to be 34 years and the average children born during that period is 5 live births.

The birth rate of Lanjias is very high, nearly 46 births per 1000 population. The general fertility rate (GFR) and general marital fertility rate (GMFR) are 192 and 267 respectively. Again, total fertility rate (TFR) and total marital fertility rate (TMFR) among the Lanjias are 5.1 and 7.8 respectively. The gross reproductive rate (GRR) is 2.4. All these

fertility measures prove that the Lanjia women are highly fertile compared to the general population of the state.

The Lanjias believe in family planning and nearly 26% couples have accepted the family planning methods. It is also found that he Lanjias use some traditional methods of birth control. They visit the primary health center (PHC) located at Chandragiri, for the diseases which are normally beyond the control of their traditional medicine man. For this reason, the death rate is high among Lanjias i.e., 26.6 per 1000 population and the infant mortality rate (IMR) is 229 per 1000 live births, which is also very high.

In the view of the above findings of the study, it may be concluded that the Lanjias are one of the under developed tribes of Orissa. Hence, due care should be taken by the authorities to improve their educational level, to protect their health and to enhance their economic standard. At the same time, they should be well motivated about the acceptance of various family welfare measures to reduce their fertility level which will ultimately bring total welfare to the Lanjia Saora Community.

14. SOCIO-ECONOMIC AND DEMOGRAPHIC PROFILE OF A KANDH VILLAGE OF EASTERN GHATS, ORISSA

India has a great variety of tribal population reflecting its great ethnic diversity. They constitute about 8% of the total population. It is generally recognized that the tribal people constitute a reasonable part of this population who are yet to reach the main stream in spite of all endeavors from government level. The economic condition of tribal community is connected with the tradition, festivals of the people of that community. The people sometimes divert from traditional economic life and try to adopt a different means of economy survival. To know whether a society is developed, under developing, it requires the interpretation of population growth in time of social, economic, psychological, ecological and other effecting situation.

Demography, as understood today, is the scientific study of human population. Population studies are now being increasingly conducted from different viewpoints and with different objectives. Such empirical studies have today become an integral part of the functioning of our socio-economic and political system.

In the present study, an attempt has been made to highlight the socio-economic and demographic profile of a Kandh village of the Eastern Ghats of Ganjam, Orrisa.

Methods and materials:

The selected Kandh village, Tamana is situated at a distance of 13 kilometers south west of Berhampur city. The study was conducted on the entire village by canvassing three structured schedules. (1) household census schedule, (2) schedule for dietary practices and (3) Schedule for fertility and morality. All the above schedules have been canvassed. Household census schedules include serval. Socio-economic questions on education, occupation and family

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Jointly with Dr. Kalpana Sabat.

income, Total enumeration method was adopted for this schedule. As large as 66 households were contacted during the study period (January 1995).Out of the total 83 households. Interview method was mainly adhered to for the collection of data along with non-participant observation.

There are 83 households in the village out of which 66 families could be covered during the study period. The numbers of the remaining households were not present during our visit to the village and hence are categorized under no response. The above findings are given in table-1

Table-1: Household Coverage

Total No. of households	Total coverage	No. response
83	66	17
Percentage	79.51	20.48

About 80% households of the village have been covered for data collection.

SOCIO-ECONOMIC FINDINGS

Family size (Household size)

The family size has been defined for the present purpose as the number of persons who reside under a common roof and whose food is being catered though a single kitchen. The distribution of household size of Kandh in different categories, i.e., small, medium, large and very large is presented in table-2.

Table -2 : Distribution of households by different sizes

Size	Small	Medium	Large	Very large	Total
	3 or less	4-6	7-9	10 or more	
Distribution	18	40	6	2	66
Percentage	27.27	60.61	9.09	3.03	100

(Average households' size 4.5)

Large and very small families are relatively in a frequency which suggests that the presence of joint family is less and average size is 4.5 per household.

Age and sex structure of the population is very much important for any kind of socio-economic study. The village age, sex structure of the population is presented in table-3 below.

Table-3 : Distribution of population by age and sex

Age group	No. of male	No.of female	Total	Sex ratio M/F x 100
00-14	063	036	099	1750
	21.07	12.04	33.11	
15-29	043	051	094	843
	14.38	17.05	31.44	
30-44	034	026	060	1308
	11.37	8.70	20.07	
45-59	018	013	031	1385
	6.02	4.34	10.37	
60+	006	009	015	667
	2.01	3.01	5.01	
Total	164	135	299	1215
	54.85	45.15	100	

(Figures in bracket indicate percentage.)

It shows that the proportion of young children (0-4)is nearly 33 percent which indicate higher reproductive potential in the coming years. The adult individual who belongs to fertile (reproductive) age group (15-44) constitute the maximum (51.6%) population, thereby showing a sign of individuals between the age grope of 45-59 is nearly 10.36 percent. In the higher age group (60 & above) the number of individuals among the Kandh is 5.01 percentage. This less distribution in the aged group is an indicator of poor health conditions. It is been from the table that adult and adolescent population are younger to older groups, the number of individuals decrease gradually due to higher mortalities in the clearly age groups.

Sex Ratio:

The sex composition is an important indicator of fertility trends, family structure, marriage patterns, and so on. The sex ratio, i.e. , the number of males per 1000 female among the Kandh (1215) show the preponderance of males over females. The sex ratio of the age group of 15-29 (843) and 60 and above (667) are lower than the other age groups, such a lower sex ratio among these two groups are due to maternal deaths and poor health conditions respectively.

Dependency Ratio:

The dependency of population is based on the fact that every member of a society is a consumer and only some members are producers (Thompson and Lewis 1965). As the age group 15-59 years is considered as economically active, the dependency ratios have been calculated in relation to this active age groups.

Distribution of Kandh in productive and non-productive age group is presented in Table-4.

Table-4 : Distribution of Kandh in productive (earning) and non-production (non-earning) age group

Age groups	Number	Percent	Type of Dependency	Ratio
Infancy &			Child dependency	
Childhood	99	33.1	(0-14/15-59)	53.51
(0-14)				
Productive	185	61.88	Aged dependency	8.11
Age(15-59)			(60+/15-59)	
Old age	15	5.02	Total dependancy	61.62
60 & above			(0-14)+60/15-59	

The child dependency ratio and aged dependency among the Kandh are 53.51 and 8.10 respectively. The corresponding figures for all India population are 73 and 5 for child and aged dependency (Jones

1974). Among the Kandhs of present study, the aged dependency ratio is higher to that of India. The child dependency ratio among the Kandhs is comparatively lower than the average of India. The total dependency ratio of the Kandhs is 62 people per 100 economic active Population and that of the country is 78. Although all members of the Kandh population contribute to the family income, they still have a hand to mouth economy. Because resources available to them along with the earning are diverted towards consumption only.

Educational status:

Educational status of a population shows the level of development which provided an indispensable foundation for all kids of progress. The educational attainments of the Kandh village is presented in Table-5

Table-5 : Distribution of educational status by age and sex

Age group	Sex	Illiterate	Only sign	Educational Level 1-3	4-7	8-10	10+2	Total
05-14	M	6	3	16	17	2	-	44
	F	16	1	9	-	-	-	26
15-24	M	9	3	2	6	11	-	31
	F	17	1	4	8	1	-	31
25-34	M	17	4	1	6	2	1	31
	F	26	3	2	-	-	-	31
35-44	M	8	2	-	3	2	-	15
	F	11	2	1	1	-	-	15
45-54	M	7	4	-	2	-	-	13
	F	10	1	-	-	-	-	11
55+	M	6	2	2	-	1	-	11
	F	11	-	-	-	-	-	11
Total	M	53	18	21	34	18	1	145
	F	91	8	16	9	1	-	125
(Per	M	36.56	12.41	14.49	23.44	12.41	0069	100
cent)	F	72.80	06.40	12.80	07.20	00.80	-	100

Majority of the female population (72.8) are illiterate as compared to 36.56% illiterate male population. The percentage of literate among male is 12.41% and in female it is 6.4%. Only a negligible percentage (0.69%) has come up to collegiate level. Illiterates above 25 years of age are more. This shows that some of the present generations are aware of the importance of education.

Occupational Pattern :

The occupational pattern of the economic active people is given in the following table.

Table-6 :Distribution of primary and secondary occupation by sex

Name of the	Primary		Secondary	
Occupation	Male%	Female %	Male%	Female%
Govt. Service	6(06.32)	-	-	-
Cultivation	8(08.42)	-	5(05.26)	2(02.22)
Agricultural Laborer	5(05.26)	2(02.22)	4(04.21)	3(03.33)
Collection of Fire wood	41(43.16)	39(43.33)	7 (07.37)	6(06.67)
Wage Labourer	9(09.47)	25(27.78)	10(10.53)	16(17.78)
Poultry & Business	1(01.65)	1(01.11)	-	-
Total works	70 (73.68)	67(74.44)	26(27.37)	27(30.00)
No work/ No respond				
Total economic	25 (26.32)	23(25.56)	69(72.63)	63(70.00)
active population	95(100.0)	90(100.0)	95(100.0)	90(100.0)

The presence of dense forest around the village encourages a large proportion of the people to work for the collection of firewood and other forest produce. Nearly 43% of male and equal percentage of female

are engaged in this pursuit. Beside fire wood collection, the Kandhs also earn their livelihood by working as wage labourers. Male 9% and female 28%.Quite a few numbers of people have a secondary source of income and a major proportion of them are wage earners, Table 6.

Table - 7: Distribution of family monthly income

Income Range	No of Families	Percentage
Below 500	24	36.36
0501-0750	27	40.91
0751-1000	9	13.64
1001-1500	1	1.51
1501-2000	3	4.55
2001-2500	1	1.51
2501-3000	-	-
3000& above	1	1.51

The total income of the family has been recorded (table 7) for computing the average income. The figures in the table show the maximum number of families(41%) earn Rs501/-,Rs.750/- per month. It is clear from the table-7 that majority of the families(77%) have their monthly income below Rs.750/-.However, some of the Government servants able to earn more than Rs.750/-per month. Thus, the average monthly income of the family is Rs. 648/- per month which is far below the poverty line,(in rural area Rs.11,000/- per year per family is considered as the poverty).

Marital Status:

The marital status of the Kandhs at the time of survey have been recorded to know the effective practice of their customary systems in the society. The status report of all persons included in the study has been given in Table-8.

Table-8 : Distribution of marital status by age and sex

Age Group	Unmarried		Married		Widow/ Widowers		Divorced Separated		Total	
	M	F	M	F	M	F	M	F	M	F
00-09	49	26	-	-	-	-	-	-	49	26
10-19	29	24	-	34	-	-	-	-	29	27
20-29	12	-	16	34	-	-	-	-	28	34
30-39	-	-	27	16	-	1	–	-	27	17
40-49	-	-	14	16	-	2	-	-	14	18
50-59	-	-	11	2	-	1	-	1	11	4
60+	-	-	5	2	1	6	-	1	6	9
Total	90	50	73	73	1	10	0	2	164	135
%	54.88	37.03	44.51	54.08	0.61	07.4	-	1.49	100	100

Among the males, the unmarried persons are found to be more (54.88%) than the married individuals (45.12%) whereas among the females the married proportion is more(54.08%) than the unmarried (37.03%). It is quite interesting to see that among the Kandhs the windows outnumber the widowers showing thereby high mortality among the aged males. This is also possible because more number of widowers remarry compared to the widows.

Age at marriage being a socio- cultural variable has an important role in the demographic studies. The age at marriage among the Kandhs is depicted in Table-9

Table-9 : Age at marriage among the Kandh

Age At Marriage	Males	Females
Below 15	---	6
	(7.06)	
15-19	25	74
	(33.78)	(87.06)
20-24	37	4
	(50.00)	(4.71)
25-29	10	1
	(13.51)	(1.17)
30+	2	---
	(2.70)	
Total	74	85
(%)	(100)	(100)

The average age at marriage of Kandh women is 15.80 years and majority of the women (87%) marry between 15 to 19 years of age. Some female(7%) got married below the age of 15 years. However, this was marked among the elderly women .It is fascinating to see that among the male Kandhs almost all persons got themselves married before the age of 30 years. Very negligible proportion (2.7%) got married even after the age of 30years . Average age at marriage of the male Kandhs is 18.60 years.

Vital Demographic findings :

Demography is the study of population change over time and space, the various determinants of population change and the impact of such changes on the world around us (Hauser and Duncan 1959)

The chief determinants of Demography are fertility, mortality and migration. However, for the purpose of the present study, the first two determinants; (fertility and mortality) are considered because migration does not have much impact on such a close population.

Fertility :

Fertility is the process through which addition or replacement is brought about in a population. Fertility refers to the actual occurrence of birth especially the live births (Cox 1969). The definition of live births as recommended by world Health Organization has been used in the present paper (Hauser and Duncan 1959).

Age parity distribution and average number of children on different age categories of women are the basic findings of any demographic studies. The age parity distribution of the present Kandh population is presented below.

Table-10 : Age Parity Distribution & Average No. Of Children

Age	Order of Births								Total No.of	Total ever	AverageNo
Group	0	1	2	3	4	5	6	7	Children	married women	of children
15-19	1	2	-	-	-	-	-	-	2	3	0.66
20-24	3	5	4	2	-	-	-	-	19	14	1.36
25-29	2	3	4	6	5	-	-	-	49	20	2.45
30-34	2	1	2	3	1	1	1	-	30	11	2.73
35-39	-	1	1	2	-	2	-	-	21	6	3.50
40-44	-	-	2	2	3	-	2	-	34	9	3.78
45+	-	-	3	6	3	2	4	2	86	22	3.91

The above table shows that the increase in the average number of children is very fast till the age group of 25-29. The average children born to this age group is 2.45. The age group of 30-34 shows slight increase to 2.73 and then it again increases in the remaining age groups. i.e., 35-39, 40-45 years and above. The table shows on an average four (3.9) children are ever born to the women 45 years and above.

Age at first child birth of the women in the various age groups is shown in Table-11.

Table-11 : Age at First Child Birth In Various Age Group

Present	Age at first child birth				No. live	Total ever
Age group	Below15	15-19	20-24	25-29	birth yet	married women
15-19	-	2	-	-	1	3
20-24	-	11	-	-	3	14
25-29	-	10	7	1	2	20
30-34	-	7	2	-	2	11
35-39	-	5	1	-	-	6
40-44	1	4	2	2	-	9
45+	2	15	5	-	-	22
Total	3	54	17	3	8	85
%	(3.53)	(63.53)	(20.00)	(3.53)	(9.41)	(100)

It is found that in all the age categories the majority of women had their first child during the age of 15-19(63.53%). Interestingly 3.53% women particularly, the elderly women have experienced first child birth below 15 years of age. As majority of women get married between15-19, the child bearing beings shortly after that. Total 8 women (9.41%) had not shown any effective conception (conception resulting in live births).

Interval between age at marriage and age at first child birth is given in Table-12. If shows that in 27 cases (31.76%) out of 85 ever married women, the first child birth occurred keeping an interval of below one year from the age at marriage. Nearly 28% ever married women experienced their first child birth between 1-2 years of marriage. Only in one case (1.18%). The interval was more than 9 years. This was the cases of child marriage. The average gap between the age at marriage and the age of first child birth is 1.78 years. Table-13 depicts age at last child birth of women 45 years and above.

Table-12 : Interval between marriage & first child birth

Age at Marriage	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9+	No. live Births yet	Total Married women
00-15	-	-	2	1	1	-	-	-	-	1	1	6
15-19	27	22	9	5	3	1	-	1	2	-	5	74
20-24	-	-	-	-	-	1	-	1	-	-	2	4
25-29	-	1	-	-	-	-	1	-	-	-	-	1
Total	27	23	11	6	4	2	-	2	2	1	8	85
%	(31.76)	(27.06)	(12.94)	(7.06)	(4.70)	(2.35)	-	(2.35)	(2.35)	(1.18)	(9.41)	(100)

Table-13 : Age at last child birth of women 45 years and above

Age Group	Age at last child birth			Total ever married women	Average age at last child birth
	30-34	35-39	40-45		
45 and above	06	09	07	22	37.36
Percentage	27.27	40.91	31.82	(100)	

It reveals that out of 22 women, 9(41%) had their last conception in the age group of 35-39, 7 (32%) in the age group of 40-45 and the remaining 6(27%) in the age group of 30-34 years. This is actually low in comparison to the last reproductive age of women which is nearly 45 years.

For various measurement of fertility, the age specific rates of the women in different age group are very much essential. Such age specific rates have been presented inTable-14.

Table-14 : Age specific fertility rate (A.S.F.R.)

Age Group	Live Births M	F	T	Female of that age group	Current married women	Age specific fertility rate	Age specific marital fertility rate
15-19	-	2	2	17	3	0.197	0.70
20-24	2	-	2	14	14	0.142	0.14
25-29	5	3	8	20	20	0.400	0.40
30-34	1	-	1	11	10	0.090	0.10
35-39	-	-	-	6	6	-	-
40-44	-	-	-	9	8	-	-
Total	8	5	13	77	61	0.749	1.34

The total live births are 13, out of which 8 are male and 5 are female. Maximum numbers of children are produced by women in the age group of 25-29 years during the reference period (February 1994-January 1995).

Measurement of Fertility:

A. Crude birth rate (CBR) : It is the ration of the birth during the year of study and the population of the village. The CBR of the village during the period is (13/299X1000) 43.47 or 44 per thousand population.

B. General fertility rate (GFR): It is the ratio of the number of live birth to the female population between the age of 15-44 the GFR of the village is = (13/77X1000) 168.9 or 169 per thousand population.

C. General marital fertility rate (GMFR): It is the ratio of numbers of live births to the currently married females of 15-44 age group to the total female population. The GMFR is (13/61X1000) is 213.11 or 213 per 1000 population.

D. Age specific fertility rate (ASFR) : It is the ratio of births by age of the mother to the women in that age group see table-14. The maximum number of children born in between 25 to 29 years.

E. Total fertility rate (TFR) : It is the sum of the age specific fertility rate multiplied by size of the class intervals. The TFR of the village is (.749x5) = 3.75

F. Total marital fertility rate (TMFR) : it is the sum of the age specified marital fertility rate multiplied by size of the class interval. It is found to be (1.34X5) = 6.7

G. Gross reproduction rate (GRR): It is the ratio of female live birth to the women. The GFR of Kandh village is (3.745 X5/13) 1.44 (It is difficult to calculate the NRR without the help of the life table). However, considering the last year death schedule it is-expected that the NRR of the Kandh would be 1.2 approximately.

H. Child women ratio (CWR)

i. $\frac{\text{Number of Children(0-4)}}{\text{Women of Child bearing age 15-44}} \times 1000$

= 29/77X1000 = 377.7 or 378

ii. $\frac{\text{No . of Children (5-9)}}{\text{Women of Child bearing age (19-49)}} \times 1000$

= 46/80X1000 = 575.

Mortality:

Mortality is the consequence of both morbidity and case of fatality rate, that is the proportion of sick person who die. According to the United Nations "Mortality is the Percentage of death in the population".

The distribution of age and sex specific mortality among the Kandhs are presented in Table-15

Table-15 : Age specific mortality rate (A.S.M.R.)

Specific age group	Number of deaths during last year		
	Males	Females	Total
00-10	1(14.3)	1(14.3)	2(28.6)
01-04	-------	-------	-------
05-14	-------	1(14.3)	1(14.3)
15-44	-------	1(14.3)	1(14.3)
45-59	1(14.3)	-------	1(14.3)
60+	1(14.3)	1(14.3)	2(28.6)
Total	3(42.9)	4(57.1)	7(100)

(Figures in brackets show percentage).

The mortality is highest (28.6%) both in male and female in the age group below 1year and above 60 years. The proportion of female deaths is more than of the male. i.e., 57% and 43% respectively.

Measurements of mortality:

A. Crude death rate (CDR):It is the total registered deaths of the village during the year of survey (D) to the population of that village during the same year (P) . The crude death rate of the Kandh village is (7/229X1000) = 23.41 or 23 per 1000 population.

B. Infant mortality rate (IMR): Infant Mortality Rate is calculated by taking the number of deaths under 1 year of age which occurred among the population of the village during the year of survey. to the total live births of the population of that village during the same year . So, the IMR of the village under study is (2/13X1000) = 153.8 or 154 per 1000 births.

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15. HABITAT AND NUTRITIONAL STATUS OF A KANDH VILLAGE OF EASTERN GHATS, ORISSA

Abstract : *Kandhs, being the largest tribal group in Orissa, are mostly distributed in the mountain regions of Phulbani, Koraput, Ganjam. Kutia, Dangri and Desia are the three subsections of Kandhs. All the Kandhs of Ganjam belong to the Desia. The study highlights the habitat and nutritional status of the Kandhs of Ganjam. Although these Kandhs stay in the close proximity of a city, the study shows that most of their activities are still connected with the forest ecosystem. They almost retain their traditional way of life and are still in the stage of subsistence economy. The different types of foods consumed by the Kandhs are much less than the ICMR standards. The average intake of calories of and adult Kandh is 2084 which is also lesser than the ICMR standard. The average adult consumption unit is 4.7 per family. Both weight-for-height and weight-for-age measurements show that Kandhs are under weight and are in the state of malnutrition*

Introduction:

The relation between environment and culture has been studied in terms of environmentalism and possiblism (Bumham and Ellen, 1979; Ellen, 1981). In the fromer it was held that energy culture is a product of the given environment and its constraints. The trouble with the perspective was of reductionism as every element of culture was believed to have a cause in the environment as one of the factors that shapes the social relations as well as the culture of a people, and such a shaping is more pronounced in the case of small-scale societies who are entirely dependent on the kind on its products (Forde, 1934).

The nutritional status of any population is the product of its culture and ecological factors. Man has always been dependent, to a varying extent, on fluctuating ecological balance between people and basic resources and its surrounding ecological systems. The utility of

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resource has constantly increased but in many cases natural resources do not increases at the same pace (Chandrasakehar, 1954), which results in change of tecno-economic pursuits. Carrying capacity is thus basically conditioned by a stratified relation between its food resources and its cultural realities as manifested in the form of mechanism of utilization of available resources (Kessing, 1957).

It is recognized that as a result of extreme poverty, the intake of various essential constituents of food may be inadequate among the tribals in India. The nature and extent of deficiency varies from tribe to tribe. There is a general view that primitive people are not nourished, but empirical data from India (Sengupta, 1969 and Raoet al., 1983) and other parts of the globe (Wrising ,1985), show that the nutritional status of relatively less aculterued primitive tribals is most satisfactory. However, certain ecological stress increases the intensity of communicable diseases among the tribals (Sahu, 1980; Sinha, 1986). In the present study, an attempt has been made to highlight some specific features of habitat and the nutritional status of a Kandh village of the Eastern Ghats of Ganjam, Orissa.

Materials and Methods :

The present study has been carried out on a Kandh inhabited village, Tamana in Kukuda-Khandi block of Ganjam district, Orissa.

At first the basic information regarding the habitat has been collected on the village because habitat dictates the livelihood pattern of the entire village.

Information with regard to productivity and number of livestocks have been calculated by personal investigation through interview technique. The non-participant observation technique is also followed. As many as 66households out of the total 83 were covered for collecting the household information of the village. The family diet survey was conducted from a sample of 30% household following the principle of systematic random sampling. Thus 25 households were interviewed for the collection of data on dietary practice. The amount of raw food stuffs consumed by the family members either weekly or monthly were recorded and from that daily consumption was calculated. The per unit

consumption was calculated, estimated by the use of consumption coefficients (Swaminaathan, 1988). The average intake of each food stuff in gram per consumption unit per day was calculated for each family. The calorie value of various food stuffs has been calculated from the food comparison table (Gopalan et.al., 1971). The results were compared with ICMR recommended allowances.

Data on nutritional anthropometry (particularly height and weight) were collected from the adult individuals between 15 to 49 years of age from the entire village by means of a well verified anthropometer and a weighing machine.

The Kandhs :

The Kandhs, famous in anthropological world for their meriah (human sacrifice) cults, are a Scheduled Tribe inhabiting south -west Orissa in the district of Phulbani, Koraput and Ganjam. They also live in Srikakulam and Visa-khapatanam districts of Andhra Pradesh. Numbering close to one million, they are the seventh largest tribe in India and the largest of the sixty-two tribes in Orissa. The Kandhs consider themselves as the original inhabitants of the soil; according to them "this is our soil, the earth is our mother and we always appease her by regularly worshipping because she provides us food " (Boal , 1982).

The Kandhs are divided into three main sections because of inhabiting different habitats and echoniches. Dangria Kandhs living in the Nimagiri Hills of Koraput, Kutia Kandhs living inte Belghar and G.Udayagiri regions of Phulbani and Desia Kandhs living in Phulbani and Ganjam District .Although each section is endogamous, inter marriages between them is not rare. Response to change also varies and in interior village, which are still inaccessible, the pristine customs and practices survive (Choudhury , 1989).

Desia Kandhs of Ganjam District are one of the endogamous groups of the large Kandhs tribe of Oriss. They are largely concentrated in the Easter Ghats region of Kukudakhandi and Chikiti Blocks in Ganjam District.

Habitat :

Ganjam District is divided into two distinct physical division; the plain region in North and the Coastal region in the South. However Eastern Ghats lies in the south-western direction. The fertile plains of this region lie between the high mountain ranges of Kerandimal and Ghadaghada river, a tributary of river Bahuda. The Kerandimal forms a plateau around 600 meters above sea level. The whole area otherwise exhibits a number of villages and vast forests.

The entire area is a hilly tract intersected in all directions by streams and torrents which run dry after the rains. It is charcterised by comparatively less cultivated land. The uplands and slopes leading down from the foot of hills are periodically cleared for raising dry crops and the low paddy lands have been permanently cleared and cultivated every year. The rest of the area is covered with thick forest.

The vegetation of the area comes under two major divisions:

(1) ***Tropical semi-ever green forest:*** The species found this division are Mangifera indica (Mango), Azadirachta indica (Neem),Diospyros ambryopteris (Makarkendu), Michelia champaca (Champa), Dillenia pentagyna (Rai), Mesua ferrae (Nagkesar), Saraca indica (Asoka) and Calamus (Canes).Teak plantation has been raised with success and it is being commercially exploited

(2) ***Tropical moist deciduous forest***: The important species found here are shores robusta(Sal), which is most common and valuable tree, Balbergia latifolia (Sisua) and terminalia tomentosa (Bahada)

Among other plants of economics importance in the area are different species of bamboos, bambusa arundinacea (Kanta Bans), Dendrocalamusstrictus (Big Bans) and bambusanutens, Diospyros melanocylon (Kenduleaf), Rauwolfia serpentine (patalagaruda), Tamarindus indica (Tamarind), Caryota urens (Sagoplam locally known as Salapa) and Bassia latifolia (Mahua). In addition, the jungle yields grass for thatching , rushes (Stem of marshy plants) for strong sleeping

mat, large leaves for plates and bowls, barkrope and many edible roots, barriers and leafy vegetables (Boal, 1982).

The forest around the village has many wild animals. They include tiger, leopard, wild pig, wild fowl, wolf, wild dogs, fox, jackel and different types of sambar and elephant. The leopards are harmful to people as they kill the domestic animals. Some of them are also man-eaters. The bear and elephant frequently enter village and destroy the crops.

The maximum temperature in summer, particularly in the month of May is around 39°C, while the mean minimum temperature in the cold season, particularly in December is 8^0C. Humidity is generally high in the area especially in the south-west monsoon and post-monsoon months. April is driest month. During the south-west monsoon, the sky is generally clouded to overcast. Wind flow are generally light to moderate with some increase in force.

Nutritional Status :

It is well known that nutrition has a profound effect at very stage of our life from prenatal stage to extreme old age. It plays a vital role in determining our longevity. It deals with the entire life process of growth, maintenance and repair of living organs as related to the intake of food. Health influences all activities of man and shapes his destiny.

It provides a solid foundation on which man's happiness rests (Sahu,1982).The parameter used for finding the nutritional status of the Kandhs are diet survey and nutritional anthropometry.

Table 1 : Population and Adult Consumption Unit of Kandhs

Age group	Children				Adole-	Adults	Aged	Total		
	1-3	3-5	5-7	7-9	9-12	cents (Teens)	20-59 M	60+ F 12-19	Population adult Consumption	
Adult consumption unit coefficient	.4	.5	.6	.7	.8	1	1.2	1.2	.8	-
Population in Various ages	6	8	10	12	8	24	26	25	7	126
Total adult consumption unit	2.4	4	6	8.4	6.4	24	31.2	30	5.6	118

Dietary Pattern:

Kandhs have a very irregular foods habits, they eat whenever food is available. Staple food articles taken by them vary with different seasons and the diet is mainly based on availability of foods stuffs. Calculation of average Adult Consumption Unit (A.C.U) of the 25 sample families is given below

Adult consumption unit per family (ACU)=

$$\frac{\text{Total family consumption Unit}}{\text{Total No. of households}} = 118/25 = 4.7$$

The above figures shows that the total population of the sample households is 126 (Table 1). Out of the total population there are 51 adults. Male and female have been categorized as moderate and heavy workers respectively. As per IMCR standard both the moderate male workers and heavy female workers should consume 1.2 Adult units. Various consumption coefficients are presented and the average adult consumption Unit has been calculated as 4.7 per family.

Table-2: Distribution of average family consumption, average adult consumption of different foods per day and their respective calorie values.

Different food items	averag family consumption	average intake of adult Kandh		Required allowance of an adult Kandh	
	in gms	in gms	in Kcal	in gms	in Kcal
Cereals	2460.86	523.59	1820	476	1650
Pulses	110.78	23.58	70	80	230
Leafy vegetable	175.17	37.28	20	125	70
other vegetable	181.08	38.52	15	75	30
Roots & tubers	178.82	38.04	45	100	120
Milk	21.73	4.62	03	100	60
Meat & fish	38.65	8.22	10	30	40
Friuts	58.82	12.51	16	30	40
Oil & fats	13.65	2.90	30	40	390
Sugar & jaggery	31.26	6.65	30	40	170
Liquor	183.91	39.12	25	-	-
Total	**3454.73**	**735.03**	**2084**	**1095**	**2800**

Note:

Column 1- This consists different food items

Column 2- This represents the average consumption of foods per day (in gms) of a Kandh family.

Column 3 - This represents the average intake of food per day (in gms an adult Kandh. It is obtained by dividing the adult consumption unit per family with the total average family consumption (represented in column 2)

Column 4- This represents the calories value of the foods of column 3 Column 5 - This represents the required allowances (in gms) of an adult Kandh. An adult Kandh male or female consumes1.2 adult units as per ICMR standard (see description under dietary pattern)

Column 6 - This represents the calorie value of column -5

The average daily family consumption of different food items and the average consumption have been presented in Table-2. The average Adult Consumption has been calculated with the help of the average consumption Unit of the family.

Compared to ohter foods stuffs, cereals consumed by the Kandh is higher than the ICMR standards. The consumptions of pulses is common for kandhs .Vegetable requirements is no way satisfactory. The rich families having the kitchen gardens grow verities of vegetables which are consumed by them. These include such as tomato, cucumber, pumpkin, brinjal, amaranthus etc. Leafy vegetables are important items among the Kandhs which is eaten as vegetables with rice. Roots and tubers are mostly collected from forest. They are olokand, pitchkand, colocassia, yam etc. The intake of milk and milk products are almost nil. It is a rare food item and the cows are not milched .Children are breast fed for one year after which they are given ragi porridge or rice. Meat and fish are consumed occasionally or on festive days. If an animal or bird is hunted it is shared by the village. Kandhs are very fond of dried fish. Eggs are not eaten but left for hatching. Different types of fruits are consumed. Sugar and jiggery very rarely. The consumption of oil is not a regular feature among the Kandhs. Liquor plays a vital role in Kandhs

life. The Kandhs feel that liquor in an energetic stimulant which breaks monotony and a drink which satisfies the starving belly. 'Mahua' and 'Salapa' are the common liquors used by the Kandhs.

The average Kandh diet consists primarily cereals and pulses which is mostly reflected in their calories intake. In order to assess whether persons suffer from under or malnourishment, it is important to find out the calorific value requirement and intake.

The average calories intake of adults Kandhs is approximately 2084 and this been calculated from the staple diet of Kandhs (Table2). The total calorie requirement for an adult moderate working male and hardworking female, recommended by IMCR is 2800 (ICMR,1994). This indicates that Kandhs are undernourished with respect to the calorie value of the food intakes.

Nutritional Anthropometry:

The pattern of growth and the physical state of the body, through genetically determined, are profoundly influences by diet and nutrition. For nutritional assessment among the adults, nutritional anthropometry is also applied in the present study.

Table 3(A): Distribution of adult male Kandhs by weight for height

Height in Cms	Beyond 20% below the std -3	Between10-20% below the std -2	0-10% below the std -1	Weight as per ICMR 0	0.10% abov Std. +1	Beyond 10% abov Std +2	Total number
Below150	1(1.19)	3(3.57)	2(2.38)	47.5	-	-	6(7.14)
150-154	3(3.57)	3(3.57)	1(1.19)	49.0	5(5.95)	2(2.38)	14(16.67)
155-159	-	1(1.19)	9(10.71)	51.5	8(9.52)	5(5.95)	23(27.38)
160-164	-	1(1.19)	3(3.57)	54.0	14(16.67)	11((13.09)	29(34.52)
165-169	-	-	-	59.0	4(4.76)	7(8.33)	11(11.10)
170+	-	-	-	62.0	-	1(1.19)	1(1.19)
Total	4(4.76)	8(9.52)	15(17.85)		31(36.90)	26(30.95)	84(100)

Table 3(B): Distribution of adult female Kandhs by weight for height

Below140-		1(1.16)	-	40.5	-	-	1
140-144	3(3.49)	8(9.30)	6(6.98)	43.0	-	-	17
145-149	4(4.65)	9(10.47)	9(10.47)	46.5	5(5.81)	2(2.33)	29
150-154	1(1.16)	12(13.96)	4(4.65)	48.5	11(12.79)	1(1.16)	29
155-159	-	2(2.33)	3(3.49)	50.5	4(4.65)	1(1.16)	10
160+	-	-	-	52.5	-	-	-
Total	8(9.30)	32(37.21)	22(25.58)		20(23.26)	4(4.65)	86(100)

Figures in brackets indicate percentage

Anthropometry data were collected on adults as part of the diet and nutrition survey in the study village. The sample comprises of 170 adults Kandhs (84 males 86 females) in the age group of 15-49 years. Two measurements namely, height and weight are collected to evaluate the nutritional status.

The nutritional grades are calculated according to weight for height and weight for age using IMCR standards.

Table 4(A): Distribution of adult Kandhs male by weight for age

Age group	Beyond 20% below the std -3	Between 10-20% below the std -2	0-10% below the std -1	Weight as per ICMR in kg 0	0.10% above std. the std +1	Beyond 10% above the std +2	Total number
15-19	2(2.38)	3(3.57)	5(5.55)	57	3(3.57)	2(2.38)	15(17.86)
20-24	-	1(1.19)	4(4.76)	60	5(5.95)	6(7.14)	16(19.05)
25-29	-	-	3(3.57)	do	4(4.76)	5(5.95)	12(14.28)
30-34	-	1(1.19)	3(3.57)	do	6(7.14)	9(10.71)	19(22.62)
35-39	-	-	1(1.19)	do	3(3.57)	4(4.74)	8(9.53)
40-44	-	-	1(1.19)	do	3(3.57)	3(3.57)	7(8.33)
45-49	-	-	2(2.38)	do	2(2.38)	3(3.57)	7(8.33)
Total	2(2.38)	5(5.95)	19(22.62)		26(30.95)	32(38.10)	84(100)

Table 4(B): Distribution of adult Kandhs female by weight for age

15-19	5(5.81)	11(12.78)	1(1.16)	49	-	-	17(19.77)
20-24	1(1.16)	7(5.13)	4(4.65)	50	1(1.16)	1(1.16)	14(16.28)
25-29	-	5(5.81)	5(5.81)	do	8(9.30)	2(2.32)	20(23.26)
30-34	-	3(3.48)	2(2.32)	do	6(6.97)	-	15(12.80)
35-39	-	1(1.16)	1(1.16)	do	3(3.48)	1(1.16)	6(6.97)
40-44	1(1.16)	3(3.48)	3(3.48)	do	2(2.32)	-	9(10.47)
45-49	2(2.32)	3(3.48)	3(3.48)	do	1(1.16)	-	9(10.47)
Total	9(10.47)	33(38.37)	19(22.09)		21(24.42)	4(4.56)	86(100)

Figures in brackets indicate percentage

The nutritional grade by weight for height [Table 3(A) and 3(B)] is observed for both adult male and female Kandh . The distribution of weight for height classification shows that, a higher percentage of male, about 37%, is found between 0-10% above IMCR standards while only 23% female lie in the same category. However, a higher percentage of females, more than 37%, is distributed between 10-20% below the IMCR standards while smaller portion (Nearly 10%) of males are found in the same group, and 9% of females are found 20% below the ICMR standard. Further, nearly 18% males and 26% females are found 10% below the ICMR standard. The weight for the height in the present study shows that higher percentages of females are placed IMCR standard in the comparison to their male counterpart. In other words, almost 55% males and 49% female are found in normal range (considering "+1" and "-1" grades as normal range). Nearly 14% males and about 47% females are under weight as per normal standards. Thus, the females are the more effected.

The nutritional grade by weigh for age (table 4A and 4B shows a reverse picture. Considering "+1" and "-1" categories as normal range, it is found that nearly 53% males and 47% females fall in normal categories. The rest 8% males and 49% females are below normal whereas 38% males and 5% females are above normal . It shows that most females are underweight compared to the males.

Conclusion :

The present study has been undertaken to describe the nutritional status of Kandh village in the Eastern Ghats of Orissa. It has been observed that although Kandhs of the study area in the close proximity of a city, the study shows the most of their activities are still connected to the forest eco-system . They almost retain their traditional way of life and are still in the stage of subsistence economy.

The different types of foods consumed by the Kandh are quantitatively less than the IMCR standards. However, the consumption of cereals is found to be the more the recommended allowance. The average intake of calories of an adult Kandh is 2084 which is also less than the IMCR standards. The average adult consumption Unit (A.C.U) is 4.7 per family.

Both weight for height and weight for age measurements shows that a majority of adult Kandh are underweight, particularly the Females. The study broadly highlights that the Kandhs are in the state of malnutrition, particularly under nutrition. This may be due to the lack of proper Knowledge regarding the nutrition and health.

The poor socio-economics status along with the careless attitude to education add further to the gravity of the situations. Concerted efforts both by government and by the non-government organizations are required for the all-round development of such a downtrodden community.

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16. STATUS OF KANDH WOMEN OF GANJAM ORISSA

The United Nations has defined the status of women as the "conjunction or position of a woman occupies as a worker, student, wife, mother of the power and prestige attached to these positions, and of the rights and duties she is expected to exercise". "To what extent, do women compared with men, have access to knowledge, to economic resources and to political power, and what degree of personal autonomy to these resources permit in the process of decision making and choice at crucial points in the life cycle?" (U.N. 1975)

A single measure cannot be used to assess the status of women: rather a "multidimensional cluster of variables" is required to indicate their status. Status is not a fixed, rigid concept, it changes over time. Women occupy different positions in the social structures as they pass through the life cycle. And the very basis upon which the community ascribes power, privilege and prestige also changes (Bhasin, 1991).

In India our attitude towards women has been ambivalent full of contradictions. Hinduism is not a monolithic religion and because it has evolved over the centuries interacting the beliefs, attitudes of diverse racial and cultural groups, there is no single Hindu view of women valid for all times. Majority of the family structure in the country is patriarchal, patrilocal and patrilineal. Consequently, a boy is regarded as the perpetuator of the family line, and a girl a 'bird of passage'. Within the hierarchical groupings generated by the caste system, the family organization further creates inequality between the sexes. With a secondary status, women play but a subducted role in social changes not withstanding women are still far behind men (Bhasin 1991).

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The status of women can be ascertained by the educational achievements of women, legal rights and status given to them, employment opportunities and demographic characteristics of women in socio-cultural terms.

This paper describes and analyses the status of Kandh women of the Eastern Ghats of Ganjam, in the state of Orissa.

Method and Materials:

As large as 29 Kandh Village (12 roadside and 17 interior villages) of Ganjam have been covered during data collection. A comparative status of both the (roadside and interior) sections is highlighted on the present study considering the following parameters.

Kandh women, as regards to their educational attainments,legal and political rights, employment opportunities and demographic characteristics: have been discussed. Interview technique was mainly adhered to for the collection of data along with non-participant observation. Total 1062 women of roadside villages and 856 women of interior have been covered for the present study.

Kandh Women:

The Kandhs, famous in anthropological; world for their Mariah (human sacrifice) cults, are a scheduled tribe inhabiting south-west Orissa in the districts of Phulbani, Koraput and Ganjam. They also live in Srikakulam and Visakhapatnam districts of Andhra Pradesh. Numbering close to one million they are the seventh largest tribes in Orissa. The Kandhs are divided into three main sections: Kutia Kandh, Dongria Kandh and Desia Kandhs. The Kandhs of Ganjam are Desia Kandhs, Desia Kandhs is referred as the Hinduized section of the large Kandh tribe.

Kandh women although do not enjoy high status: they are economically very proactive to the family as well as to their community. The economic value that women have in the Kandh way of life an important and position, only a few items at the time of wedding are given to the daughters as a gift.

However according to Kandh tradition the women have an important role to play. Gender principles control the organization of the traditional communities. Gender and the division of labour that depends on its recognition are decisive elements giving stability and cohesiveness (IIlich.1982, Abu-Lughed , 1985).

Women's role as wives, mothers, organisers and other dimensions of social life are of most importance. Although Kandhs are patrilineal, yet the mother plays a vital role in the family, men are out for economic activities, so the rearing and socialization of children automatically becomes mothers' business.

Kandh women are very strong and courageous under the several limitations when the man is away for searching jobs or for other reason the women stay in the house and does not extend to social or political sphere. However, it is interesting to note that although now a bother to attend the meeting or to take any active interest in political sphere.

Ecological conditions in the area where the Kandhs inhabited have resulted in a mixed economy i.e., agriculture, collection of firewood collection, from this source they get additional food by selling the firewood to the outsider. They also get different types of edible roots, leafy vegetable during the collection of fire wood in the forest.

Although agriculture is the mainstay of the Kandhs, yet the food produced is not enough for the whole year. The climate, short working season, low level of irrigation the area, fragmentation of the land resulting in small fields preventing the mechanization of agricultural practices, absence of surplus labour in the area .There are affected the agricultural production in the study area. There are families who do not have enough land to fulfill their economic needs throughout the year. There are also a few landless families. They have look for other jobs like wage earning, construction of house etc. Therefore, they have a mixed economy because of ecological imperatives.

As regards the division of labour, the male Kandhs perform plaughing, cutting of big trees and construction of house where as female

perform almost all other outdoor activities along with their male counterparts. In addition to these, females perform all the household activities even without taking the help of the males. Thus, the females are considered to be the hard workers while the males are moderate workers.

The equality of both sexes can be seen in the attitudes and practices concerning marriage, divorce and household harmony. Though tribals are primitive and beck ward than other communities, the marriage in Kandhs society is basically arranged marriage. The girl may marry her husband younger brother if her first marriage. Dowry system in its true traditional sense is not prevalent among the Kandhs.

Women may leave her husband if she is angry, dissatisfied or unhappy. As stated earlier, the Kandh women are strong and courageous, she can earn her livelihood without any life partner and stays in a separate house till she returns to her husband or finds a new one. Such silly mistakes done both by husband or wife sometimes turn to divorce. A divorcee may, however, remarry.

Yet the power of women in the family is not translated into corresponding authority. They are regarded high at household level but are not given much power for women within the family.

Role of women is not only importance in non-economic social activities but also has equal importance in economic activities.

Activities of Women:

Major portion of the agriculture is done by women who do hoeing, weeding, harvesting and thrashing except ploughing (which is done by the male) in the field. The other activities of women include looking after the house, children and cattle. Women start their household work until mid-day, they too carry home loads that obtained from and work up to late afternoon. Coming from the field they again start preparing the evening meal. It is interesting to note that the Kandh women work from the morning to late evening unlike urban women. Almost all food processing is women's work. Girl is trained by their mothers from an

early age to prepare food, to perform other household work, especially looking after their younger brothers & sisters and also to work in the field.

Where there is no agricultural work, they go to forest for gathering firewood and collecting other minor forest produce, During the collection of fire wood they carry their food along with them or at times take raw food and cook in the forest . Towards afternoon they return home carrying the load on their heads.

Thus, in the Kandhs community of the study area women work very hard in comparison to their male counterparts as a result of this women are not considered backward. They are responsible for their own share of work but do not share benefits equally.

Men and women differ in the way they speak and what they talk about (Illich, 1982) .Women talk about the home, children, emotions; while men talk about work innovations , ideas and politics. Education is generally conceived by Kandhs as a means of upward social mobility for men. The women's mobility on social ladder is through marriage to a person who is likely to be socially mobile. Women social position is not affected whether she is educated or uneducated. This discrimination or feeling against women is not because of her intelligence or ability to learn. This does not help her in the traditional life style. This is because of such beliefs the participation of Kandh women in education is comparatively less.

Demographic scenario of Kandh women:

The demographic characteristics of any community can be studies from qualitative and quantitative viewpoints, The level of education, standard of living, income, occupation etc. are studied first, whereas size of population, birth and death rate, age-sex composition etc. are analyzed second (Srivastava, 1988).

Some important demographic features of the Kandh women are given below by their place of residence, the roadside and the interior.

Age structure:

The age structures of any population at a particular period are the product of the birth, death and migration rates which have operated in preceding three to four generations. The distribution of women of both the sections in presented in table-1

Table 1 : Distribution of Women by Age Group

	Number of females	
Age group	Roadside	Interior
0-14	352(33.15)	287(33.53)
15-29	318(29.94)	243(28.39)
30-44	250(23.54)	197(18.55)
45-59	86(8.09)	80(9.35)
60+	56(5.27)	49(5.72)
Total	1062 (100)	856 (100)

(Figures in brackets indicate percentage)

The above table shows that young girls of both the sections constitute a sizable proportion (roadside 33% and interior nearly 34%) of the total women. The adult women who belong to fertile age group (15-44) constitute 53.48% among the roadside and it is 51.40% in case of interior villages. There are only 5.27% among the roadside and 5.27% among the interiors belonging to the aged group (60 and above).These low distribution in the above table that in the reproductive age group the roadside villages constitute a higher proportion of the women than that of the interior villages .This might have some impact on the fertility performance of both sections.

As regards the economic active age group 15-59 years some distinction is also marked .The roadside village and 64.75% among the interior ones.

Educational attainment:

Kandh women as stated earlier, mostly depend on the firewood collection. Agricultural activities and social activities such as looking after household activities, children and cattle. For them education is little required as a result of which Kandh girls are not encouraged for education so female literacy is quite low. However, the level of education among both the sections of Kandh women is shown in table-2

Table - 2 : Distribution of educational Attainments by age group

Age In Years	Illiterate		Just sign only		literate									
					1-3		4-7		8-10		10+2		total	
	R	I	R	I	R	I	R	I	R	I	R	I	R	I
0-14	127	142	113	49	93	82	19	14	-	-	-	-	352	287
15-29	75	108	53	79	74	40	77	13	37	3	2	-	318	243
30-34	65	107	46	55	69	26	57	9	13	-	-	-	250	197
45-59	52	57	18	13	11	7	5	3	-	-	-	-	86	80
60+	49	43	5	3	2	3	-	-	-	-	-	-	55	49
Total	368	457	235	199	249	158	158	39	50	3	2	-	1062	856
%	36.7	53.4	22.1	23.3	23.5	18.5	14.9	4.6	4.7	0.4	0.2	-	100	100

Majority females (53.08%) of the interior Kandh villages are illiterates compared to the females of the roadside whose percent of illiteracy is 34.65%. It is seen from the above table that the roadside females are quite high in their educational level. This has been possible due to the development of the area, contact with the city population and opening schools among the roadside villages. This encourages the roadside Kandh women towards education. The percentage of literate (those who know sign only) among roadside Kandhs is 22.13% where as it slightly high among the interior women (23.25%). However, as regards the formal literacy the roadside Kandhs show higher rates. A negligible percentage of roadside Kandh women has come up to collegiate level whereas there is on one among the interior Kandh, enrolled as college students. Thus, the general educational picture among the both the sections is not encouraging.

Occupational pattern:

The occupational pattern of the economic active women of both the sections is presented in Table-3.

Although Kandh women are used to earn their livelihood by the collections of firewood and other forest produce, they also accept some other jobs like cultivation, business and wage earning . It is found that nearly 31% women of the roadside Kandh villages and 45% of the interior villages are engaged on firewood collection. Next to it 26.30% of roadside Kandh women are engaged in wage earning whereas 25% of interior Kandh work as agricultural labourers. Quite a few numbers of women of both the sections have a secondary source of income . A major proportion of which work as wage labourers among the roadside Kandh women and among the interior Kandhs maximum women are engaged on fore wood collections (Table-3).

TABLE-3 : Distribution of eco-active women by occupation

Name of the	Primary		Secondary	
occupation	R	I	R	I
Govt Service	4	-	-	-
	(0.61)			
Cultivation	-	-	2	-
Agricultural labour	106	130	57	86
	(16.21)	(25.00)	(8.72)	(16.54)
Collection of the fire wood	204	234	45	81
	(31.19)	(45.0)	(6.88)	(15.58)
Wage lobour	172	19	62	13
	(26.30)	(3.65)	(9.48)	(2.50)
Business & other	16	8	3	-
	(2.45)	(1.54)	(0.46)	-
Total work	502	391	169	180
	(76.76)	75.19)	(25.84)	(34.62)

(Figures in brackets show percentage)

Marital Status :

Marital status of the Kandh women have been recorded to know the effective practice of their customary systems in the society. The status report of the Kandh women belonging both sections are included in the study. Table-4 shows the distributions pattern of the marital status of the Kandh women.

TABLE- 4 : Distributions of Women by age and Martial status

Age group	unmarried		married		widow		divorced		total	
	R	I	R	I	R	I	R	I	R	I
0-14	32	287	-	-	-	-	-	-	352	287
	33.15	33.52							33.14	33.52
15-29	102	72	209	168	4	3	3	-	318	243
	9.6	8.4	19.68	19.63	.37	.35	.28	-	29.94	28.38
30-44	2	3	233	180	10	10	5	4	250	197
	.19	.35	21.94	21.02	.94	1.17	.47	.47	23.54	23.01
45-59	-	-	76	73	6	4	4	3	86	80
			7.15	8.53	.56	.47	.38	.35	8.09	9.34
60+	-	-	34	31	21	18	1	-	56	49
			3.2	3.62	1.98	2.10	.09	-	5.27	5.72
Total	456	362	552	452	41	35	13	7	1062	856
%	42.98	42.29	51.98	52.80	3.86	4.09	1.22	.82	100	100

Among the women of roadside Kandh the unmarried proportions are slightly higher (42.98%) than of the interior Kandh villages (51.98%). The widowed, divorced and separated constitute nearly 5% in both the sections.

Age at marriage:

Age at marriage being a socio-cultural variable of fertility has an important role in the demographic studies . The age at marriage among the Kandh village as well as among the interior Kandh villages is depicted in Table-5

Table-5 : Distribution of ever married Kandh women by their age at first marriage.

Age at marriage	Rordside	Interior
Below 15	91(15.01)	97(19.63)
15-19	460(75.90)	359(72.67)
20-24	47(7.75)	34(6.68)
25-29	8(1.32)	4(0.80)
Total	606	494(100)
Average age at marriage	(17.26)	(16.94)

(Figures in brackets indicates percentage)

The average age at marriage of the roadside women Kandh women is17.26 whereas it is 16.94 among the interior women of Kandh. Majority of Kandh women got married between 15-19 years in both sections. Some women also got married in the age group of 25-29 years, It is 1.32% for the roadside villages and only 0.80% among the interior .

Current Fertility:

Fertility is a process through which additions or replacements is brought about in a population. Fertility refers to the actual occurrence of birth specially the live births (cox,1969). The definition of live births recommended by the world health oraganisation has been used in the present paper.

TABLE 6 : Age Specific Fertility Rate

Age group		Total live birth			total women	current married women	ASFR	ASMFR
		M	F	T				
15-19	R	4	8	12	115	46	.10	.26
	I	3	5	8	101	50	.08	.16
20-24	R	11	7	18	108	75	.17	.24
	I	15	9	24	81	73	.30	.33
25-29	R	19	10	29	95	88	.30	.33
	I	6	15	21	61	58	.34	.36
30-34	R	8	6	14	94	88	.15	.16
	I	7	8	17	84	72	.18	.20
35-39	R	4	3	7	81	75	.09	.09
	I	2	3	5	70	61	.07	.08
40-44	R	2	3	5	75	70	.07	.08
	I	-	-	-	43	32	-	-
Total	R	48	37	85	568	442	.88	115
	I	33	40	73	440	346	.97	1.13

The total live births during the study periods of the road side Kandh as well as interior are 85 and 73 respectively. Out of the roadside Kandhs total live births there are 48 boys and 37 girls, Maximum children are produced (29) by the women in the age group of 25-29 years. Among the interior Kandhs total live births are 73, out of which 33 are boys and 40 are girls. Maximum number of children produced (24) by the women in the age group of 20-24 years during the references period. The above table reveals that the roadside Kandh women gave births maximum the boys (48) than the girls (37) whereas it is opposite among the interior Kandh i.e., Girls are born in higher numbers (40) than the boys (33)

Measurement of Fertility

C.B.R (Crude Birth Rate)	R = 36.8 I = 41.03
G.F.R (General Fertility Rate	R = 149.64 I = 165.90
T.F.R (Total Fertility Rate)	R=4.40 I = 4.85

T.M.F.R (Total Marital Fertility Rate) R = 5.75 I = 5.65
G.R.R (Gross Reproduction Rate) R = 1.92 I = 2.66
Child Women Ratio (C.W.R)

(R) $\frac{\text{Number of children (0-4)}}{\text{Women in the age group of15-44 years}} \times 1000$

R = 451
I = 495

(B) $\frac{\text{Number of children (5-9)}}{\text{Women in the age group of19-49 years}} \times 1000$

R = 428
I = 454

The crude births rate of the roadside Kandh is 36.79 whereas as it is 41.03 for the interior Kandh, the general fertility rate of the roadside of Kandh is 149.64 and 165.9) respectively. A more precise measure of fertility is age specific fertility which throws light on the fertility pattern of the women. The age specific fertility table shows that the incase of the roadside Kandh the highest rate is found in 25- 29 age group whereas it is highest in 20-24 age group among the interior Kandh. On an average 4 children are born per women of the roadside Kandh while it is 5 among the interior Kandh women. The reproduction rate analysis shows that the females life births during the references period among the roadside and the interior Kandh are nearly 2 and 3 respectively.

Conclusion:

Kandh women poses a special economic power, an elevated social status and almost equal rights as that the men, However , there are certain spheres in which men continue to dominate, as is culturally required . Moreover, community administration is still in the hands of men. There is an interesting picture found among the women of the study region that men dominate in public and community affairs but acts as nominal heads in their respective families whereas women enjoy greater authority in family and relish a great deal of the social freedom.

If we see their educational achievements, legal and political rights, employment opportunities and demographic characteristics, interior Kandh women do not have that higher status as the roadside Kandh women do have . Literacy rate among the Kandh female of interior section is as low as 46.6% against 63.35% among the roadside Kandh women. Almost 77% of roadside women are engaged in different occupational activates while it is 75% for the interior Kandh women. Among the Kandh of the study area, high fertility is valued and the position of fertile women is higher than the sterile women. On an average 4 children (T.F.R-4.4) are born per women of the roadside villages 5 children (T.F.R-49) to women of interior villages.

In the patriarchal Kandh society men dominate in the public sectors whereas women have a freedom and a right to self-expression. The onset of developmental programmes, economics changes have not much affected to the Kandh women especially the interior Kandh women who still remain traditional in their dress, language and culture. However, modernization has brought some changes which are reflected among the roadside Kandh women.

17. A CHANGING SOCIO-DEMOGRAPHIC SCENARIO OF THE SAURAS IN ORISSA

Sauras are one of the major tribes of Orissa. They are known by different names such as Saora, Sora, Savara, Sabara and Saar. However, all of them belong to one tribe, showing their racia affinity with the Proto-Australoids. The Saura languages come under the Mundari group of Austric family. However, due to constant interaction with the neighbouring Oriya people they have accepted Oriya as their second language. Sauras are mainly distributed in Ganjam, Gajapati and Koraput Districts of Orissa. They are also found in the adjacent districts of Andhra Pradesh. There are three broad divisions of the tribe such as the Lanjia (Primitive). The Sudha (Hinduised) and the Christian (converted) Sauras. The latter two groups are the accultured (changed) categories, whereas the Lanjias are the primitive and the original Sauras.

The common identity of Lanjia Saura is expressed in their religious beliefs and rituals such as worship of common spirits and ghosts. This group mostly depends on shifting cultivation along with hunting and food gathering as their livelihood. Economically, they are most backward compared to the other two groups.

The Sudha Saura exhibits many cultural features of the Hindus. They have accepted plane cultivation being influenced by the neighboring Hindus. As a result, the Sudha Saura villages are mostly found in the foothills. Besides, they also practice animal husbandry and various indigenous economic pursuits.

The Christian Sauras who have accepted Christianity belong to Primitive (Lanjia) section of the community. The adaption of a new religion has separated them from the other two sections of the Saura.

However, the Christian Sauras still observe the lineage (Birinda) exogamy as that of the Lanjia Saura. Economically, the Christian Sauras

Tribes in Transition, Page - 7-26, Discovery Publication, New Delhi, 2000, jointly with Dr. S.K.Sahu

are better off compared to their counterparts, as they get donations, both in cash and kind from the missionaries along with health and educational benefits. Further, in spite of their conversion they also avail the govt help and other facilities similar to the primitive Sauras.

The present paper highlights the socio-economic and demographic scenario of the above three categories of the Sauras in a comparative way.

Methods of study :

The paper is based on the original empirical work, covering 26 villages in total. Data were collected from 218 Lanjia households, 212 Sudha households and 227 Christian households. Three different types of structured schedules such as (I) Household census schedule (II) Schedule for marriage and fertility (III) Schedule for disease and mortality. The above schedules were canvassed among the various households for getting necessary data. Further, observation method, particularly non-participant type was also adhered to for recording various information. The enumeration was conducted on door-to-door contact basis. The help of village head man, village school teachers, village level workers, Sarpanches, and Priests of Churches and other village elites were also sought for.

Findings :

The findings of the study have been analyzed under the following broad categories.

Family Size :

Family is the smallest social unit. It is observed that only the consanguineal kins constitute the household. Joint families are commonly noticed among the Sudha Sauras. This shows that the Sudhas have accepted the Hindu way of joint family system. Such joint family system is not found either among the primitive tribes or among the Christians. However, Table-1 shows that the Lanjias have a higher family size. This contrasting finding is justified because Lanjia fertility is higher (discussed latter) and they also receive all types of help from the Saura Development Agency (S.D.A)

Table -1: Distribution of Family (Household) size

Household:	1	2	3	4	5	6	7	8	9	Total
Lanjia:	0	9	42	48	56	29	16	13	5	218
%	0	(4.12)	(19.26)	(22.0)	(25.68)	(13.30)	(7.33)	(5.96)	(2.29)	(100)
Sudha:	3	22	28	34	52	49	17	7	5	212
%	(1.41)	(10.37)	(13.20)	(16.0)	(24.5)	(22.1)	(8.0)	(3.30)	(2.5)	(100)
Christ:	1	11	56	57	46	34	14	5	3	227
%	(0.4)	(4.9)	(24.1)	(25.1)	(20.3)	(15.0)	(6.2)	(2.2)	(1.3)	(100)

(Average family size: Lanjia - 4.82, Sudha - 4.77, Christian - 4.48)

Table -1 reveals that the Christian Sauras have comparatively a smaller family size. This changed scenario is possible due to the constant influence of the Christian Missionaries.

Population structure and composition :

The population structure and composition of the selected Saura villages show an interesting feature. The 218 Lanjia, 212 Sudha and 227 Christian households have population of 1051, 1011 and 1018 individuals respectively. It is found that proportion of female population in case of Lanjia Saura is more than the males but in case of Sudha and Christian Saura the proportion of male is comparatively high.

TABLE - 2: Distribution of Saura Population

Section of Saura	Male	(%)	Female	(%)	Total	(%)	Sex Ratio (M/Fx1000)
Lanjia	523	(49.78)	528	(50.24)	1051	(100)	990
Sudha	544	(53.81)	469	(46.19)	1011	(100)	1165
Christian	591	(50.98)	499	(49.02)	1018	(100)	1045

It is noticed that the sex ratio of Lanjia is 990 males per 1000 females. This is a case of low sex ratio which favors the females. In case of Sudha Sauras, the sex ratio is 1165 males for 1000 females. This is a case of high sex ratio which favors the males. However, the sex ratio of the Christian Saura is in between Lanjia and Sudha that is 1040 males per 1000 females which also favours the males. It is observed that the status of women among Lanjia Saura is more

or less balanced. But the women in case of Sudha and Christian Saura enjoy somewhat low status (this requires further investigation). Further, it is also noticed (discussed under mortality) that the male death rates among the Lanjia and female death rates among the Sudha and the Christian are relatively high. Of course, migration factor was not considered while discussing the sex ratio. However, we are sure that the impact of migration on sex ratio must be negligible.

Educational Standard :

The socio-economic status of a community depends on the educational standard of the people. Educational standard is also an indicator of economic development. The following data in Table-3 reveals a changing scenario of the educational standard of the three sections of the Sauras.

TABLE-3: Percentage distribution of educational standard

Sections Of Saura	Illi-Terate	Below L.P.	Up to L.P.	Up to U.P.	Up to M.E.	Up to H.Sc	Beyond H.Sc.	Total Literate
Lanjia	78.42	12.83	4.00	1.66	1.77	1.22	0.12	1.57
Sudha	58.7	20.00	5.50	6.40	3.10	5.40	0.80	41.30
Christ.	77.50	19.58	0.82	0.82	0.58	0.70	---	22.50

(Children below 5years are excluded)

The study shows that the total literates among Lanjia, Sudha and Christian are 21.6%. 41.3% and 22.5% respectively. The percentage of literates among Lanjias and Christians are far behind compared to the state literacy figures, i.e., 49% as per 1991 census. But the Sudhas are not lagging far behind compared to state figure. The total illiterate among Lanjia, Sudha and Christian are 78.4%, 58.7% and 77.5% respectively.

From the above analysis it is clear that the Sudhas are more advanced in literacy compared to other two sections of the tribe. Table-3 depicts the educational standard from L.P. to beyond Matriculation of Lanjia is better than Christian Sauras. But as per the total literacy is

concerned the Christians show a higher percentage (22.5) than the Lanjias (21.5). It is because in below lower primary level the Christian children are much ahead than the Lanjia children. This may be due to the immediate effect of the Christian missionaries these people are lagging far behind in education in comparison to the state standard. The Lanjias are also lagging behind in total literacy but without any motivation or assistance. However, the Sudhas are much ahead in education among all the three Saura categories. This might be due to impact of the Hindu way of life, culture and philosophy.

The tribal education is of great importance for economic development of the state as a whole. So, the government is taking much interest in tribal education, at present. Hence, concerted effort is highly essential to bring the Saura educational standard at par with the state standard.

Occupational Status :

It is observed that majority of the tribals in all the three sections are engaged in cultivation. The plane and terrace cultivation are commonly found among the three sections of the Sauras. It is further observed that there is a noticed that 60.30% of the population among the three sections of the Sauras are workers, Table 4

TABLE- 4: Saura workers by age workers by age group

Section of Saura	Child age group (below - 15)	Eco-active age group (15-59)	Aged Group (60 & above)	Total workers
			(in per cent)	
Lanjia	3.85	96.00	44.00	61.00
Sudha	15.70	76.30	36.11	55.10
Christian	23.40	97.50	50.00	64.74

It is noticed that from the economic active age group (15.59), as large as 96% among the Lanjias, 76% among the Sudhas and 97% among the Christian are engaged in various economic activities. In view of the above workers population, we can say the Saura is an active tribe. Of course, they don't get an opportunity to work throughout the year. Further, more than 13% among Lanjias, 15% among Sudhas and

23% among Christian Sauras in the child population are active workers. Comparatively, maximum Christian children are active workers. This change might be due to the impact of Christian missionaries. Among the aged males 44% Lanjias, 39% Sudha and 50% Christian are actively engaged in various economic activities.

It is also observed that the Sauras are engaged in government service which is a remarkable feature. This indicates that at present the Sauras are gradually accepting secondary and tertiary jobs.

The total workers are more than 60% among Lanjia, 55% among Sudha and more than 64% among the Christian Saura of the total population of respective sections.

It is also found that very less Saura population have accepted business as an occupation. They also collect and sale forest produce in the nearby market. It is interesting to note that the Christian Sauras do not undertake business as an occupation.

Income and Expenditure :

The entire income and expenditure of the family from different sources have been calculated and categorized by monthly basis. Income determines the standard of living of the family whereas the expenditure recognizes the consumption pattern of the family.

TABLE -5: Distribution of average monthly income and expenditure of Sauras

Sections Of Saura	Average monthly income	Annual per capita income	Average monthly Expenditure	Average per capita Expenditure
Lanjia	514	1284	526	1309
Sudha	641	1608	650	1635
Christian	492	1320	521	1395

Table 5 reveals the average income and average expenditure of the three sections of the Saura. Both the average income and expenditure have been calculated taking seven income and expenditure slabs. Similarly, nine different family categories have been taken for

analysis, the lowest being one member family and the highest is 9 members and above.

The Sudhas show the highest family income, average being Rs. 641/-, the Christians show the lowest income with an average of Rs. 492/- per month, and the Lanjias enjoy the middle status as their average income is Rs. 541/- per month. From the above analysis it is clear that the Lanjias and Christians more or less belong to one economic class whereas the Sudhas are at a higher income level. The per capote income of Lanjia, Sudha and Christian Sauras are Rs. 1284/-, Rs 1608/- and Rs. 1320/- respectively. The per capita income of Christians is more than the Lanjias (though the average income of Lanjias is high) is due to the lower family size of Christians (4.48).

The average expenditure of the Lanjia, the Sudha, and the Christian Sauras are Rs. 526/-, Rs. 650/- and Rs. 521/- respectively. Table 5 clearly shows that all the three sections of the tribe spend more than their income. However, the Christian Sauras on an average spend more than their income compared to the other two sections of the tribe. This is because they are being helped both in cash and kind by the Christian missionaries. The expenditure schedule determines the consumption pattern of the individuals. The Christian Sauras, being converted, possess a changed way of life which determines their consumption pattern. The change in way of life multiplies their wants and hence the consumption pattern. Thus, the expenditure of the Christian Sauras has increased under changed circumstances.

The Lanjias are being helped by Saura Development (SDA) located at Chandragiri so they are able to spend more. But the Sudhas neither get any help from government sector nor from non-government organizations (N.G.O). They borrow from their class friends and local money lenders to meet their expenses.

Marital status :

Maritial status in any demographic study provides the fundamental information regarding the vulnerable group responsible for fertility. The data in Table 6 clearly states the differential maritial status of the three sections of the Saura.

It is evident from Table 2.6 that the percentage of unmarried males among the Lanjia,the Sudha and the Christian are 57%;55%, 56% and females are 52%, 44%, 51% respectively. It is found from Table 2.6 that a large number of males and females are unmarried among the Lanjia Saura than that of the other two sections. However, a low percentage of Sudha women are unmarried in comparision to their counterparts. This change could possibly be due to the influence of their Hindu meighbours. It is also observed that the percentage of currently married males among the Lanjia, the Sudha and the Christian Sauras are 38%, 42%, 41% and currently married females are 38%, 49% and 43% respectively. It is found that comparatively a large number of Sudha males and females are currently married among the three sections of the tribe.

Table - 6: Distribution of Population by marital status

Sections	Unmarried		Married		Widowed		Div/Sep		Ever Married		Total	
Of Saura	M	F	M	F	M	F	M	F	M	F	M	F
Lanjia	296	276	201	205	22	34	4	13	227	252	523	528
	(56.6)	(52.3)	(38.4)	(38.8)	(4.2)	(6.4)	(0.8)	(2.5)	(43.4)	(47.7)	(100)	(100)
Sudha	299	205	231	231	12	24	2	7	24.5	262	544	467
	(55.0)	(43.9)	(42.4)	(50.0)	(2.2)	(5.1)	(0.3)	(1.5)	(45.0)	(56.1)	(100)	(100)
Christ	290	255	214	214	10	16	5	14	229	244	519	499
	(55.9)	(51.1)	(40.1)	(43.5)	(1.9)	(3.2)	(0.9)	(2.8)	(43.3)	(48.6)	(100)	(100)

(Lanjia male accepted two wives: cases of polygyny)*

The widowed, divorced and separated females among the Lanjia, the Sudha and the Christian are 9%, 7% and 5% and the corresponding male figures are 5%, 2.5% and 2.6% respectively. From this it is clear that large number of widowed. The practice of polygyny among the Lanjia Sauras was observed during the time of data collection. The data in Table 6 show the imbalance between the currently married males and females (male- 201, female-205) among the Lanjia Saura is due to the presence of four polygamous families. The polygamous families are not observed among the Sudha and the Christian Sauras during data collection. This change towards monogamy is due to the influence of Hindu and Christian religions.

Age at marriage :

Age at marriage is an important social as well as demographic factor which influences the child bearing period and also determines the fertility of the community .The average age of first marriage of the Lanjia, the Sudha and the Christian males are 22.7, 22.6 and 23.2 years and of females 18.4, 18.6 and 20.4 years respectively, Table 7

Table- 7 : Ever married population by age at first marriage

	Age at first marriage											
Section	below-15		15-19		20-24		25-29		30above		Total	
OfSaura	M	F	M	F	M	F	M	F	M	F	M	F
Lanjia	1	18	33	148	150	85	41	1	2	-	227	252
	(0.4)	(7.1)	(914.1)	(58.7)	(66.1)	(33.7)	(18.1)	(0.4)	(0.9)	(-)	(100)	(100)
Sudha	2	24	46	152	123	84	71	2	3	-	245	262
	(0.8)	(9.1)	(18.7)	(58.0)	(50.2)	(32.1)	(28.4)	(0.7)	(1.2)	(-)	(100)	(100)
Christ	33	114	131	118	65	12	- -		229	244		
	(-)	(-)	(14.5)	(46.4)	(57.2)	(48.4)	(28.4)	(4.8)	(-)	(-)	(100)	(100)

(Average age of first marriage Lanjia -male 22.7 and female 18.4 , Sudha - male 22.6 and female 18.6 and Christian male 23.2 and female 20.4)

Table 7 indicates that maximum number of Lanjia and Sudha females marry in between 15 to 19 years of age , 58.7% and 58% respectively. Further, maximum number of Lanjia and Sudha males marry in between 20 to 24 years of age 66.1% and 50.2% respectively. However, in case of Christian Sauras maximum number of marriages for both male and female (48%) take place between 20 to 24 years of age. A very low percentage of marriages below 15 years of age are noticed among the females of Lanjia nad Sudha. Interestingly, in case of Christian Sauras, marriages below 15 years of age are not found. This changing scenario of age at marriage is due to the impact of the Christian religion on this tribal society.

The average age of first marriage among Lanjia, Sudha and Christian Saura are 22.7 years, 22.6 years and 23.2 years for males respectively, and 18.5 years, 18.6 years and 20.4 years for females respectively. It is interesting to note that the age of first marriage both

for male and female of all the three sections of the community are above the Government recommended ages of marriage. This higher are of marriage is due to the culture practices of both Lanjia and Sudhas. The influence of Christianity has contributed greatly for the high age of marriage among the Christian Sauras.

Age of women at first child birth :

Age of women at first child birth reflects the actual age at which female enter into motherhood or the eventual entry of female into the actual fertility performance. Table 8 shows the distribution of ever married Saura women by their actual gap between the age at marriage and the first child birth.

Table-8: Distribution of ever marrried Saura women by gap between age at marriage and first child birth

Sarura Section	Gap between age at marriage and first child birth							
	Below 1 yr.	1-2	2-3	3-4	4-5	5Yrs.	No. Res.	Total Ever married women
Lanjia	44	77	49	26	18	14	24	252
	(17.5)	(30.6)	(19.5)	(10.3)	(7.1)	(5.6)	(9.5)	(100)
Sudha	21	87	70	29	14	15	26	262
	(8.0)	(33.2)	(26.7)	(11.1)	(5.3)	(5.7)	(9.5)	(100)
Christian	7	77	71	36	16	19	18	244
	(2.9)	(31.6)	(29.0)	(14.8)	(6.6)	(7.8)	(7.4)	(100)

(Average gap: Lanjia 2.23 yrs. Sudha 2.39yrs and Christian 2.65 yrs. No response women are excluded from the average calculation.)

The data in Table 8 reveal that the average gap between the age of marriage and the age at first child birth among the Lanjia is

2.23 years and those of Sudha and Christian are 2.39 years and 2.65 years respectively. This shows that the Christian Saura has a larger gap between the age at marriage and first child birth.

Further, Table 8 reveals that the largest distribution among the Lanjia, the Sudha and the Christian Saura is (30.56%, 33.20% and 31.56% respectively) found in between 1 to 2 years of gap. The lowest Lanjia respondents (5.56%) experienced their first child birth after a gap of 5years from marriage. The lowest Sudha couples (5.3%) experienced their first child birth in between 4 to 5 years of gap from marriage but the lowest Christian couples (2.8%) experienced their first child birth within the first year of marriage.

It is also noticed that a few ever-married couples among three sections of the tribe are childless at the time of interview , these are grouped under no response column. The percentage distribution of these childless couples among the Lanjia, the Sudha and the Christians are 9.5%, 9.8% and 7.4% respectively.

Open birth interval :

The time gap between the present age and the age of last child birth is known as the open birth interval. This is also another indicator of the actual reproductive span of the females. Open birth interval also speaker about the use of family planning method among the Saura couples.

Table- : Distribution of Saura ever married women by the open birth interval :

	Open birth interval						
Sections of Saura	0-3	4-7	8-11	12-15	15+	No. Res. ever married women	Total
Lanjia	105	47	29	29	8	24	252
	(41.67)	(18.65)	(11.51)	(11.51)	(3.17)	(9.52)	(100)
Sudha	103	54	19	34	26	26	262
	(39.31)	(20.41)	(7.25)	(12.96)	(9.92)	(9.92)	(100)
Christian	92	68	26	21	19	18	244
	(37.71)	(27.67)	(10.66)	(8.61)	(7.79)	(7.38)	(100)

(The average open birth interval among Lanjia , Sudha and Christian Saura are 5.33, 6.44 and 6.00 respectively . No response women are excluded from the average calculation).

The present study shows that the percentage distribution ofwomen among the Lanjia , the Sudha and the Christian Sauras, who had their open birth interval within 3 years, are nearly 42%, 39% and 38% respectively. As large as 18.65% of Lanjia women have enjoyed the open birth interval in between 4 to 7years, 11.51% each within 8 to 11 years and 12 to 15years. A total of 20.61% Sudha women have enjoyed an interval of 4 to 7years, about 7% within 8 to 11 years and 13% in between 12 to 15 years while as large as 27.87% Christian women have experienced and interval of open birth within 4 to 7years, 10.66% in between 8 to 11 years and 8.61% within 12 to 15years. The percentage distribution of women among the Lanjia, the Sudha and the Christian Sauras who an open birth interval of 15years and above are 3.17% , 9.92% and 7.79% respectively.

The average open birth interval among the Lanjia, the Sudha and the Christian are calculated to be 5.33 years, 6.44 years and 6 years respectively. This indicates the use of family planning methods either for spacing or for stopping child birth. Both Sudha and Christian Sauras show slightly greater open birth intervals than that of Hindu and Christian religion, education and exposure to various modern media.

Age at last child birth :

Age at last child birth shows the actual completion of child bearing activities. In the present study the women who have completed their fecund period (45 years and above) are considered for the calculations of the age as last child birth. Table 10 gives a clear picture of the distribution of women above 45 years by their age at last child birth and children ever born.

Interestingly Table 10 shows that maximum women, among the Lanjia (32.2%) and Christian (30.18%) Sauras have their last child birth during 35-39 years of age. However, the maximum Sudha women (39.65%) experienced their last child birth during 30 to 34 years of age. As large as 13.56% Lanjia women experienced their last child birth during 40 to 44 years. 18.64% in between 30-34 years and about 27% before 30years of age. Nearly 28% Sudha women during 35 to 39 years, 10.34% women in between 40 to 44 years and about 14% women before

30 years of age experienced their last child birth. As larege as 24.53% Christian women during 40 to 44 years and 26.30% women had their last child birth in between 30 to 34 years of age and about 11% women experienced their last child birth before 30years of age. However , the average age at last child birth among the Lanjia, the Sudha and the Christian Sauras are 34.26 years 34.23 years and 35.70 years respectively and average children born to them during these periods are 5.0 , 5.1 and 4.8 respectively.

Table-10 : Distribution of age at last child birth of the Saura women 45 years and above by children ever born

Section	Age at last child birth							
Of Saura	15-19	20-24	25-29	30-34	35-39	40-44	No. Total Res. ever Married women	
Lanjia	-	-	16	11	19	8	5	59
	(-)	(-)	(27.12)	(18.64)	(32.20)	(13.56)	(8.47)	(100)
Sudha	-	1	7	23	16	6	6	58
	(-)	(1.72)	(12.06)	(39.65)	(17.58)	(10.34)	(10.34)	(100)
Christian	1	2	3	15	16	13	3	53
	(1.89)	(3.97)	(5.56)	(26.30)	(30.18)	(24.53)	(5.66)	(100)

(The average age at last child birth among Lanjia, Sudha and Christians are 39.26, 34.23 and 35.70 years respectively, and also average children born are 4.98, 5.10 and 4.78 respectively. No response women are excluded from the average calculations).

It is found from Table 10 that the Sudha women usually begin their fertility schedule around 20years. Hence, the affective child bearing period is only 16years, almost a reduction of 14 years(average fecund period is 30 years). This reduction is possible because of several factors such as late age at marriage , widowhood, acceptance of fertility controlling measures and possibly due to under nutrition. Under is also important for reducing the fecund period, Das (1979). Agrawala (1973) has stated that on an average 10 to 13 years of effective fertile period is lost due to various factors and mostly because of widowhood.

Children ever born :

The number of children ever born mainly depends on the duration of marriage. The duration of marriage is also an important indicator for knowing the actual period of fertility performance. Panda (1989) observed that Fecundity among tribal women is generally lower compared to the nontribal women. The average number of children born to the tribals is 2.5 whereas among the nontribal is 2.9. The number of children ever born and duration of marriage is shown in Table 11.

Table-11 : Distribution of children ever born by duration of marriage

Sections	Children ever born									Total Ever		
of Saura	1	2	3	4	5	6	7	8	9	No. Res.	Married Women	
Lanjia	42	56	48	42	15	14	5	4	2	24	252	
	(16.67)	(22.22)	(19.04)	(16.67)	(5.95)	(5.55)	(1.98)	(1.58)	(0.79)	(9.52)	(100)	
Sudha	39	37	4538	30	29	8	6	4	26	262		
	(14.89)	(14.12)	(17.18)	(14.50)	(11.45)	(11.06)	(3.08)	(2.29)	(1.52)	(9.92)	(100)	
Christ	40	64	5234	16	11	6	2	1	18	244		
	(16.39)	(26.23)	(21.31)	(13.93)	(6.56)	(4.51)	(2.46)	(0.82)	(0.41)	(7.38)	(100)	

(The average duration of marriage and average children ever born during the period among Lanjia , Sudha and Christian are 13.7 yrs., 16.7 years, 16.4 years and 2.82, 3.3 and 2.9 respectively).

It is observed that during the average duration of marriage, theaverage number of children born to the Lanjia, Sudha and the Christian women are 2.8, 3.3 and 2.9 respectively. However, the maximum Lanjia women (22.22%) and Christian women (26.25%) have given birth to 3 children. As long as 19.04% Lanjia and 21.3% Christian women gave birth to 3 children. Nearly 17% Lanjia, 15% Sudha and 14% Christian women gave birth to 4 children. The percentage distribution of women among the Lanjia, the Sudha and the Christian Sauras who gave birth to 5 and above children are 15.87%, 29.39% and 14.75% respectively. The above data show that the Sudha women have an edge ever the other two sections as regards children ever born.

Current fertility :

Children born last gives a clear picture of the current fertility. Further, from this data a good number of fertility measures can be obtained. Table -12 shows the children born last year(one year before the study) along with the age specific fertility of the three sections of the tribe.

Table - 12: Age specific fertility of the Saura

Sections Of Saura	No.of women	No.of currently married women	Children born last year			A.S.F.R.	A.S.M.F.R
			M.	F.	Total		
Lanjia	250	180	25	23	48	1.014	1.559
Sudha	255	189	21	20	41	0.915	1.236
Christ.	236	173	21	18	39	0.942	1.197

From Table 2.12 the following fertility measurements are calculated and the necessary analysis has been made.

The crude birth rate (C.B.R. of the Lanjia, the Sudha, and the Christian Sauras are 48, 41 and 36 births per 1000 population respectively. The C.B.R. of Lanjia is the highest among the three sections of the tribe. Low literacy and high infant mortality are the chief causes of such a high birth rate.

The General Fertility Rate (G.F.R.) is the ratio of live births to

the total fecund women. The G.F.R. and G.M.F.R. of the Lanjias, the Sudha and the Christian are 192 and 267, 161 and 217 and 166 and 225 respectively. The G.F.R. and G.M.F.R. of the Lanjias are the highest among the three sections of the tribe.

The total fertility rate (T.F.R.) and the total marital fertility rate (T.M.F.R.) among the Lanjias are 5.1 and 7.8 and among the Sudha are 4.6 and 6.2. However, among the Christians, they are 4.7 and 6.0 respectively. The T.F.R. and T.M.F.R. of the Lanjia is the highest among the three sections of the tribe.

The gross reproduction rate (G.R.R.) of the Lanjia, the Sudha and the Christians are calculated to be 2.43 , 2.23 and 2.17 respectively. This shows that the Lanjia women are highly fertile.

The above measurements of fertility reveal that the Lanjia Saura has a high fertility schedule compared to the Sudha and the Christians. In other words, the Sudha and the Christian possess low fertility compared to the Lanjia. This changing scenario is possible due to the impact of Hindu and Christian religions.

Family planning practices :

Family planning does not mean merely birth control rather it means the real welfare of the family. However, family planning is very common among the three sections of the Saura tribe. However, these have a poor knowledge about their family welfare. The family planning methods currently used by the three sections of the tribe are as follows. They follow four methods such as (I) Sterilization (ii) Intro- Uterine Contraceptive Device (I.U.C.D.) (iii) Regular use of oral pills, (iv) Conventional contraceptive (CC) . However, the Sauras are aware of some traditional methods since long in addition to the above stated modern methods. Table-13 shows the family planning methods which are in practice among the three sections of the tribe.

Table-13 : Distribution of respondents by the methods of family planning acceptors

Total Respon-	Treminal Method CC.	I.U.C.D.		Traditional method Total	Total currently married fecund women	Dents
Lanjia	5	9	45	7	66	180
	(2.78)	(5.00)	(25.00)	(3.69)	(36.67)	(100)
Sudha	3	12	34	2	51	189
	(1.58)	(6.35)	(17.99)	(1.06)	(26.98)	(100)
Christ	-	18	43	-	61	173
	(-)	(10.40)	(24.86)	(-)	(35.76)	(100)
Total	8	39	122	9	178	542
(%)	(1.47)	(7.19)	(22.51)	(1.66)	(32.84)	(100)

Table 13 shows that the total acceptors among the Lanjia, the Sudha and the Christian are about 36%, 26% and 35% respectively. The total acceptors of the state are about 36% among the currently married fecund women, National Family Health Survey (1994). The sterilized person among the three sections of the tribe is in majority i.e., about 22percent. The next higher proportion (7.19%) of acceptors have preferred Intra-Uterine Contraceptive Device (I.U.C.D). The Lanjias and the Sudhas preferred tradition method (1.66%) than the conventional contraceptives (1.47%). But the Christian Saura neither appreciate conventional contraceptives nor the traditional methods. The couple protection rate among the Lanjia, the Sudha and the Christians are 31.14, 24.81 and 34.75 respectively. Interestingly the couple protection rate is slightly higher among the Christians than the other two sections of the tribe.

The high couple protection rate among the Christian Saura is due to the impact of the continued advice of the Christian Missionaries.

Disease :

The scientific study of the disease is known as epidemiology. A considerable portion of tribal population is killed by different kinds of diseases. In the present paper, and attempt has been made to describe regarding the prevalence of various common diseases among the three sections of the tribe and how do they combat with diseases found in different months of a year in this area.

Table - 14: Distribution of common diseases in the study area

Months	Name of the Diseases
Jan-Mar	Astama, Malaria, Skin disease, Respiratory trouble, Viral fever.
Apr-June	Malaria, Dysentery, Eye disease, Skin diseases. July-Sept.
Malaria, Cold Fever, Diarrhea. Cold cough.	
Oct. Dec.	Malaria, Asthma, Respiratory trouble.

Source: Chandragiri Primary Health Center.

Table -14 shows the common diseases during a Calendar year. Besides the above diseases, Tuberculosis, Sycosis, measles, etc.,

are also found among the people at the area. These people normally referred to their village medicine man or the Priest (Shaman) for their common ailments . But when the case is beyond the control of the traditional medicine man they come to the Primary Health Center at Chandragiri. The Lanjia and the Sudha are not much conscious of their health and sanitation. On the other hand, the Christian missionaries educate the Christian Saura about the health and sanitation. They also provide free treatment and distribute medicines, baby foods and certain other commodities to the Christian Saura. This has greatly helped the Christian Saura to become conscious of their health and sanitation.

Mortality :

Mortality also determines the size of population and its composition by sex and age . According to the United Nations Mortality is the percentage of death in the population". Mortality in the three sections of the tribe during one year prior to study has been discussed below. Table 15 shows the distribution of current deaths of the three sections of the Saura tribe.

Table -15: Distribution of current deaths of the Saura tribe

Sections of Saura	Male	Female	Total	C.D.R. (Per 1000)
Lanjia	15 (20.00)	13 (17.33)	28 (37.33)	26.00
Sudha	11 (14.70)	13 (17.33)	24 (32.00)	23.74
Christian	11 (14.70)	12 (16.00)	23 (30.66)	22.59
Total	37 (49.33)	38 (50.66)	75 (100)	

The crude death rate (C.D.R.) calculated from the above data among the Lanjia, the Sudha and the Christian Sauras are 26.60, 23.74 and 22.58 respectively .It is observed that more Lanjia males (20%) died last year than the females (17.33) . But in case of Sudha and Christian Sauras more females 17.33% and 16% died in the same year respectively. However, the overall health situation among the Saura

villages is not satisfactory in spite of the Government and Missionary efforts to overcome the health hazards of the Saura community as a whole.

Conclusion :

The present study it is observed that whatever changes have come to the Sauras are mostly due to the influence of Hindu and Christian religions. The two influential religions have a contrasting approach for changing the tribal culture. In Saura case, the acceptance of Hindu religion was possible due to a constant and continuous interaction among the Lanjia Saura and the neighboring Hindu castes. This was an automatic process. No formal agents were necessary for the changes. This process in called as 'Hinduization'. However, for the acceptance of the Christianity the role of missionaries (agents of change) is unavoidable. Without the help of the missionaries the spread of Christianity would not have been possible. So, in the former case it was automatic and in the latter case it was organized. It would therefore be scientific to name the first type as 'Hinduization' and the second type as de-tribalization.

Whatever the process and the degree of change may be, in both cases, the Sauras are exposed to the greater world. Some of their bling and harmful practices are changed. Better economic and health care systems have gradually been accepted. Interest for education have culminated and above all new developmental thoughts have channelized. Therefore, any change which brings development and prosperity without hampering the national interest is good and should be acceptable to every family and community as a whole. Thus, the tribes of India experienced the good and bad aspects of change. They are still in a fluid state and are anxiously waiting with their minds and hearts open to receive the light of the new socio-economic order.

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18. WOMEN IN GADABA SOCIETY: A SOCIO-ECONOMIC AND DEMOGRAPHIC PROFILE

The Gadaba is one of the primitive tribes of Orissa. They are distributed in the southern part of the state, mostly Koraput district. A large proportion pf the Gadaba are concentrated in the blocks of Lamtaput, Similiguda, Pattangi and Nandapur. Total population of the tribe is estimated to be 80 thousand in 2001 with a sex ratio slightly favouring women, unlike the ratio of general population of the state which is normally favours men. In general, the sex ratio of tribes in Orissa favours the women. This equal or higher sex ratio of the women in the tribal society is the main indicator of the high status of women in their society.

Women in every society is an epitome of purity-a cardinal source of the inspiration and a fountain of paramount love. So also, in Gadaba society the women enjoy a pivotal position in every aspect of the life: social, economic and demographic.

Social Aspect:

The moment a child is born in the Gadaba Society all the kin members, both paternal and maternal make merry for a couple of days and if new born is girl child they enjoy it still more. A series of ritual and functions are performed during the childhood of a girl. She passes her childhood mostly singing and dancing with her family members and friends. She also helps her parents in many ways in maintaining the household. Thus, she does not know when she attains puberty. Generally, the girls attain puberty in beginning of their teen i.e 12 to 13 years of age. Gadaba girls marry at the age of 14 to 15 years after attaining puberty. The marriage in Gadaba society is monogamous (marriage between one man and one women)

Tribal Women in India, Page 40-49, Discovery Publication , New Delhi ,2002
Jointly with Dr. Bijayalaxmi Dash & Dr Pranita Sabat.

and they practice clan exogamy (marriage outside the clan). Marriage within the clan is not allowed as the boys and girls of a single group are regarded as brothers and sisters. There are mainly six types of marriage prevalent in the Gadaba society such as

i) Arranged marriage (Raibadi bibha)
ii) Love marriage (Udlia bibha)
iii) Marriage by capture (jhika bibha)
iv) Marriage by service (paisamundi bibha)
v) Marriage by exchange (Badla exchange)

Arrange Marriage:

Arrange Marriage is considered to the ideal form of the marriage in the Gadaba society. In this type of marriage, the consent of both, the proposed groom and the proposed bride, is considered properly before finalizing the marriage, after several purposeful visits between the two parties the marriage is finalized after consulting the Dissari (Gadaba priest). Finally, the marriage takes place at the bride's place with much pump and ceremony. Grooms party pays bride price (an amount in cash and kind is paid to the bride's family as a respect and is returned if marriage is broken) to the father of the bride. This payment of bride shows the high status of women In the Gadaba society.

Love Marriage:

Traditionally this is called at Udlia bibha. In this type of marriage both the amorous youth elope mostly to a new place without getting the special approval of the respective village or household (when the two belongs to the same village). After some days the parents of the bride come to them and share food and drinks and fix the amount of bride price. After the bride price is paid to the bride's parents the groom is gradually accepted by the bride's family and then the village which is followed by a communal feast.

Marriage by Capture:

In this case normally the girls know by whom and when she is going to be captured. Such a situation arises when the girl's parents or

family do not agree to the marriage proposal offered by the boy's family. Pervious inter-family conflict or disagreement over the amount of the bride price are the common causes where marriage by capture takes place. Sometimes two boys may be interested to marry the same girl. In such cases also the strongest party captures the girl from the market place or festival place and the marriage takes place is an auspicious day by the priest. In most of the cases capture is not possible without the consent of the girl.

Marriage by Service:

This is a typical marriage practice where the role of the girl is also important. Here the boy proposes to the girl of his choices and after her consent he approaches her parents for the final approval. As per the prevailing social systems the girl's parents ask for the bride price if they accept the proposal. If the boy is not capable of paying the bride price, he offers his service to his proposed bride's family. After this proposal is accepted, the boy is allowed to stay with his proposed in-law's family and services for them as regular member. However, during his stay he is not allowed physical contact with his wife. After a few months or even years of service if the girl's parents are satisfied with the behavior of boy, they arrange a formal marriage. After the marriage is over the new couples are allowed to stay where they like. In the normal cases they return to the boys village , but where the girl is the only child in the family there the boy is requested to stay with their parents in law as a Ghajwain which he generally accepts with the interest and consent of his wife. So, in every case the interest of the Gadaba women is safeguard and their wishes are honored.

Marriage by Exchange:

This is also an accepted type of marriage in Gadaba society to avoid the payment of the bride price. In this system the two families exchange their daughters in marriage to their sons. This type of marriage not only saves the families from the payment of bride price but also promotes a stronger tie between two families.

Widow Marriage:

In Gadaba Society the widows are allowed to marry. Normally the younger brother of the late husband gets the first chance to marry. If both agrees to this preferred rule then there is no problem to any family. This system of marriage is known as junior Levirate system. If this is not agreeable then the widow is allowed to marry any other person in the society whom she accepts. In this case the proposed husband has to pay the bride price to the late husband's family .This shows the high status of women in the Gadaba society.

Besides marriage, the role of the women as a daughter, as a wife, and as a mother in the family is greatly felt. Their decisions in the family are very much honored, their feelings are very much respected and their presences in every walk of like is quite felt. The Gadaba women are found of wearing a number ornaments are generally made of brass and aluminum. The hair is neatly combed and the use of hairpins is very common. Generally, it is found that the elderly married women wear a typical ear-ring, circular in shape, made of sliver, brass or aluminum and is called Mandia Mundi. It is normally worn on the upper portion of the ear (the helix cartilage) . This reflects the material status of the women. On the lower portion of the ear (ear-lobe) they wear another ring called Negur. One or two big silver rings are also worn round the neck called Khagla. The Gadaba women are very much fond of wearing a lot of necklaces made out of colourful beads. In both the hands the women normally use bangles made of silver, iron or brass known as Khadu . Interestingly tattoo marks are not done on the body of Gadaba women .On the whole, wearing the traditional dress and ornament the Gadaba Women look pretty and colourful. Traditionally the women wear two long pieces of hand woven multi colour (Red ,Blue ,Orange ,Yellow and White), sharee called as Kerang. One piece is a worn around the waist which hangs down to the knees, the other piece is worn across the body which is placed under the right arm and the ends are tied on the left shoulder. Now- a - days they are wearing colourful sarees and under garments buying from the weekly market.

Economic Aspect :

The economic life of Gadaba society centers around simple agriculture starting from the preparation of agriculture till the end of harvest. The involvement of Gadaba practice two types of cultivation namely: shifting cultivation and plain cultivation. Except tilling the soil and milching the cow, the Gadaba women have their hand in all other activities. Besides helping in agricultural process, they also go to the forest for collecting the forest produce. Collection and gathering from the nearby forest on a group early in the morning along with their food and return in the afternoon with a heavy load on the head . From the jungle they collect fruits, nuts, tubers leaves, fire wood and much more. Forests play an important role in Gadaba economy. The average family income per month is about Rs.500/-

Besides, cooking and other household activities, collecting from the forest, helping in agriculture the Gadaba women also carry their respective goods and articles to the weekly market for selling. No doubt, Gadaba men help as per their capacity. Like all tribal women the Gadaba women are indeed hard workers compared to their male counterparts. It is for this socio- economic importance of Gadaba women they enjoy a high status in their society. Morally a hard-working Gadaba woman has a better stake in the fixation of the bride price then the less active women. However, it is difficult to find an indolent woman in the Gadaba society.

Although economic active age group is universally accepted to be 15 years to 59 years it is not a practice so far as the Gadaba women is considered .From the early childhood (age of five) the Gadaba girls learn to help their mothers in all household activities. By the age of nine they become almost expert in all household work and become as an economic asset to their household. Gradually the load of work increases and continues to increase till they get married. However, the Gadaba women remain economic active upo their sixties, if not otherwise sick. Considering the economic significance of the Gadaba women , many anthropologists have described them as the core of Gadaba economy .

Demographic Aspect :

The role, involvement and participation of women in the demographic processes of any community is very well understood. Demography (the population size, composition, distribution and changes there in) of a community largely depends upon the structure and composition of the women of that community. The Gadaba community is no exception to this. The following table shows the Gadaba population and their Sex Ratio since 1971.

Table 1: Gadaba Population and sex ratio since 1971

Year	Population			Sex	Decadal	Remarks
	Male	Female	Total	Ratio	growth	
1971	23180	23414	46594	1010	-	Actual
1981	28327	28586	56913	1019	22%	Actual
1991	34309	34556	68865	1007	21%	Estimated
2001	41216	41422	82638	1005	20%	Estimated

Tithe sex ratio distribution of the Gadaba population shows that the proportion of women are more than the men. The high female sex ratio is an indicator of the better status of women in their society . As regards the female literacy, it was almost 01% in early 70s' (males nearly 05%) .In 2001 the female literacy has gone up to 05% (males 30%). Gadaba demographic studies are very rare. However, in a recent study of four Gadaba villages the following, demographic figures are noticed in the Gadaba society .

Table 2: Marital status of Gadaba women

Marital Status	Gadaba Distribution	State figures 2001 (Estimated)
Unmarried	40%	45%
Married	45%	45%
Widow	12%	08%
Divorced /Separated	03%	02%

It is seen that the proportion of unmarried population is higher among the total women population of the state as compared to the Gadaba women. But the proportion of widow and divorced population is higher among the Gadabas. However , the currently married population is found to be equal. Interestedly the fertility figures in Table 4 show that the Gadabas have higher fertility compared to the corresponding figures of the state.

Table 3: Individual demographic features of Gadaba women

Demographic Features	Gadaba Findings	State figures 2001 (Estimated)
Average age at Puberty 13 yrs	12.5yrs	
Average age at Marriage	16 yrs	18 yrs
Average age at First child birth	17yrs	19 yrs
Average age at Last child birth	38 yrs	36 yrs
Average age at Mena.....	44yrs	46 yrs
Average Life span	50 yrs	60 yrs

The above figures shows that although the age at puberty among the Gadaba Women is slightly high compared to the state figures, in all other demographic feature the Gadaba Women lag behind. Lower economic, educational and health facilities among the Gadaba community are responsible for this.

Table 4: Births, Death and Family Size

Related Features	Gadaba Finding	State figures 2001(Estimated)
Average no. of children ever born to a woman	6	4.8
Average no. of children ever dies	3	1.8
Crude birth rate	50	30
Crude death rate	30	15
Infant Mortality rate	200	100
Average family size	4	4.5

Above table shows that the average family size of the Gadaba is four members which is slightly less than the state average (4.5). Interestingly the average number of children ever born to a Gadaba women is nearly 6 whereas the state figure is a little less (4.8) . The birth rate and death rate of the Gadaba are very high e.g., 50 and 30 per thousand population, the corresponding state figures are much less (30 and 15 respectively). The infant mortality rate is also very high among the Gadabas. This high fertility among the Gadaba community is due to less spread of education, low economic condition and low level of health and family welfare awareness.

Although the above figures are found from our four Gadaba Villages they can safely be represented for the entire Gadaba women. In this context the authors highly recommend a comprehensive demographic study of the Gadaba community of Orissa. However, the above demographic pictures of Gadaba community show that this tribe is still in the beginning stage of the demographic transition which is represented by high births and high deaths. Similar picture is expected from all the primitive tribes of Orissa. Interestingly, if we analyse the demographic scenario of the Gadaba community the status of women cannot be predicted as higher compared to the general population of the state.

However, demographic components are not only the indicators of the status of women in the community. In this paper the authors have analysed three aspects of the Gadaba community to show the status of Gadaba women. On the average the status of Gadaba women is higher than Gadaba men. The economic importance and the social significance of the Gadaba women predominate the Gadaba society. In this fast changing and infotech age if such tribal cultures are not protected properly, after a couple of decades this would disappear. The hard working, colorfully dressed attractive Gadaba women will remain only in the pages of the tribal history.

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19. POPULATION GROWTH AND HEALTH STATUS IN ORISSA

The fast population growth rate in less developed and developing countries like India is as major an obstacle to their material progress as a major global socio-economic and political problem. No other phenomenon casts a darker shadow over the prospects of national development than the staggering growth of population. Mr. Robert S. McNamara, former President of the World Bank was more emphatic in saying, "The greatest single obstacle to the economic and social advancement of the majority of peoples in the underdeveloped world is the rampart population growth". Similarly, Mr. A.W. Clausen, Ex-President of the World Bank also warns that failure to arrest population growth at this stage will definitely result in poverty. Lowering the standards and quality of life and resultant undesirable social and political consequences in the developing the less developed countries. The starkest warning has been sounded by enrich in his classis book entitled "The Population Bomb" that if the growth continues at the present rate for 900 years, there would be some sixty million billion people. This would be about 100 people for each square yard of earth's surface, land and sea. Population does not simply increase, its explosion as a seminal problem giving rise to its inevitable consequences on all aspects of development, especially employment, education, housing, health care, sanitation and environment.

This paper gives an overview of the population situation in the country as well as in the state and the health status in Orissa. With 2.4% of the total world area (3.28 million sq. Km. out of 13,589 million sq km.) 15% of the world population, India has the dubious distinction of being the second most populated country in the world. According to the 2001 census, the country's population was 1, 028,610, 328 . The population has rapidly increased since the time for independence. From 345 million at the time of independence, it went up to 1028 million in 2001. By year of 2016, it is expected of reach 1264 million. On an

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average, about 16 million people are added each year or 43,000 each day or 30 every minute. Orissa occupies an area of 1,55,707 sq.km. i.e., 4.7% of India with a population of 36,804,660. India has an decadal growth rate of 21.34% while interesting Orissa has 16.25%, but the density of population in Orissa in 236sq. km. in comparison to that of 324 in India. Hence, the population situation in Orissa seems to be encouraging with a lower growth rate in spite of higher sex ratio (no of females per 1000 males)i.e., 972 in comparison to 933 in India. But if we go deep and find the actual cause of lower growth rate in Orissa it will be very much disappointing. While the crude birth rate in Orissa is low-rise. 23 per thousand in comparison to 24.8 in India, the crude death rate is 9.7 per thousand in Orissa and 8 in India. The most serious matter of concern is the infant and neonatal morality rate which are very much higher in Orissa, these data can be better presented in a tabular from below.:

Table-1 : Demographic Profile of Ofissa and India

INDICATORS	ORISSA	INDIA
Area in Sq.Km.	155707	3287263
Population(2001 Census)	36804660	1028610328
Male	18660570	532156772
Female	18144090	496453556
Rural Population	31287422	742490639
Urban Population	31287422	286119689
Scheduled Caste Population	6082063	`166635700
Scheduled Tribe Population	8145081	84326240
Density of Population per Sq. Km.	236	324
Sex Ratio(Female per 1000Males)	972	933
Growth Rate (2001)	16.25	21.34
Total Literacy Rate(%)	63.08	64.84
No. of Districts	30	593
No. of C.D. Blocks	314	5428
No. of Village Inhabited	50972	593732

Table-2: Decadal Population Growth of Orissa and India Since 1901 to 2001

Year	Population		Decadal Pop. Growth in %		% of Orissa Pop. to that of India
	Orissa	India	Orissa	India	
1901	10,302,917	238,396,327	---	----	4.32
1911	11,378,875	252,093,390	10.44	5.75	4.51
1921	11,158,586	252,321,213	-1.94	-0.31	4.44
1931	12,491,056	278,977,238	11.94	11.00	4.48
1941	13,767,988	318,660,580	10.22	14.22	4.06
1951	14,645,946	361,088,090	6.38	13.31	4.08
1961	17,548,846	439,234,771	19.82	21.64	4.00
1971	21,944,615	548,159,652	25.05	24.80	3.86
1981	26,370,271	683,329,097	20.17	24.66	3.86
1991	31,659,736	846,302,688	20.06	23.85	3.74
2001	36,804,660	1,028,610,328	16.25	21.54	3.58

Source: Health & Family Welfare Year Book, 2004-2005

Population growth is now the most threatening problem of the entire globe. It has become a cause of tension for the economist, demographers, scientists and governments. Effective control over population growth has become the crying need of the hour. The time has come to know about the hazards of large family and benefits of small family. Younger generation should be well aware of the magnitude of population explosion as a problem and relevant causes as well as serious consequences of population growth.

Causes of Population Growth :

i) Decreasing death rate due to scientific advancement, medicinal and clinical improvement, availability of health and welfare programmes and expansion of education facilities.

ii) Increasing birth rate due to lack of awareness about population problem, no-acceptance of family planning measurers, lack of attitude and values of a small family.

iii) More growth rate in population -Gap between birth rate and death rate widens. As death rate falls sharply an birth rate even if remains constant gap is created.

iv) Socio- Culture Factors-Beliefs and taboos like child is a gift of God and human beings have nothing to do, a woman must have many children, parents should have sons for their old age security, son is a necessity for performing after death rituals, etc. are responsible for population growth.

v) People below poverty line desire for more children because,

   a. All their issue does not survive due to lack of child care

   b. Their children after five t six years contribute to the economy of family. Children are perceived as assets of the family.

   c. They are least concerned about the future prospect of their children. They have neither hope to rise not fear to fall in the society.

vi) In tropical countries like India, girls and boys attain maturity earlier. The parents consider girls as burden and they arrange early marriage which leaves a long span of fertility . A large proportion of the population is in the reproductive age group and their reproductive decision contribute significantly to the population growth.

vii) Since a large number of family planning acceptors are in the higher age bracket, fertility has not reduced considerably. In the other words, if people have several children before accepting family planning this does not lead to a reduction in the population growth.

viii) Poor status of women and low female literacy have a profound impact on family planning acceptance. It is observed that these two factors of women contribute to high fertility.

x) Ignorance and illiteracy . Due to illiteracy and lack of interest, many people are ignorant of small family norms, birth control methods, family planning programmes, governmental inventive like Green Card facility etc.

xi) India is now in a process of transitions from demographically developing to developed country. In the process of transition, education does not cover total population, employment increase death rate increases but birth rate increases, child population and people in old age group are more, non-working population exceeds working people.

Consequences :

As such high birth rate and low death rate result in an alarming rate of population growth. The physical resources of our country of our county are limited but the population is growing. This unabated growth in population has cast its shadow on the social, economic, health, educational and developmental activities of the people of the country. Thus, growing population gives rise to problems like want of foods, lack of accommodation, unemployment, lack of qualitative education, scarcity of essential goods, encroachment of agricultural land, depletion of forest, brain drain, urbanization, migration, slums, malnutrition, poor sanitation, wastage of natural resources, pollution of air, water & environment, health hazards, crime and corruption, other socio-economic offences, deterioration in ethical values of society thought pattern and attitude of the people and so on there by defeating the very purposes of human life.

An analysis of the consequences of population growth leads to find out ways for immediate control of population growth. But control over population growth does not mean that only birth rate is to be controlled, it intends to check birth rate after minimizing the fertilityspan of mothers which in turn, ensure good health and nutrition to mother a child in particular and the whole family in general, in order to achieve this, we should direct out attention toward the sphere of health and nutrition.

Health and its Importance:

"It is increasingly being recognized that good health is an important contributor to productive an economic growth, but it is first and foremost and end in itself, in a poor country like India, where the

only assets more people have is their bodies, health assumes even greater significance. Good health and it natural and its natural corollary defense against illness - is fundamental to human being . if the state exists to safeguard the right of its citizens for the fundamental prerequisites of survival, it must also own up its responsibility to protect them from illness and premature mortality." (India Heath Report-2003)

The health of the people of a country is of paramount importance. Without healthy families we cannot think of a healthy society. Due to population growth and consequent shortage of space to live, free air to breath, clean and fresh water to drink, good and nutritious food to take, many diseases like typhoid, malaria, tuberculosis, problem with respiratory organs skin diseases, tetanus and many other which are infectious in nature cripple the life of the people . Besides, women who are mothers, expecting mothers and nursing mothers mostly suffer from anemia, heart disease, breathing difficulty, strains associated with child care and shortage of nutrients due to insufficient intake of food. The unhygienic practice of child birth leads to the infectious diseases with mother. Due to population growth child's health is also threatened badly. In the total death, chart, child death occupies a significant place. Children die at an early age due to premature birth, birth injuries, asphyxia, communicable disease like measles, venereal disease, toxemia of pregnancy, tetanus, diphtheria etc. Besides, infant mortality is caused by diarrhea, respiratory problem, improper feeding, malnutrition an improper child care .

The health hazards of mother and children can be combatedto a major extent by orienting mother about nutrition and malnutrition, possible health hazards during and after pregnancy and proper immunization of children against a number of diseases in the initial stage and child care.

Health Status In Orissa :

India was the first country in the world to launch family planning programme in 1952 mainly to reduce the birth rates and to stabilize the population at a consistent level. The Family planning programmes was implemented in Orissa in 1956. The scope of family welfare programme

at present is not merely intended to stabilize population, but it has much larger perspective with a holistic approach towards reproductive and child health service , family planning , immunization, training etc. .comprising a comprehensive health care package . The family welfare activities are guided as per the policies, guidelines and funding by Govt. of India.

Schemes Operated and serveces available under

F.W. progtam in Orissa:

a) Sterilization Programme: More thrust has been given to popularize male and female sterilization through vasectomy and tubectomy respectively within the eligible couples having one or two living children .Cash compensation is also paid to the acceptor besides free supply of drugs, dressing and transport for the purpose. In Orissa on an average 1.5 lakhs of sterilizations are conducted per year out of which 98% of the cases are tubectomy. To popularize vasectomy i. e. male sterilization a new technique i. e.NSV (No Scalpel Vasectomy) has been launched in the state .

b) I.U.D programme : As insertion of intra-uterine device does not involve any surgery ,this method has become more than 2 lakhs of females within their reproductive age group accept this method per annum. The state Govt. has taken steps for better advocacy to make this programme more client based and popular although it is a temporary method of family planning.

c) Contraceptives Programme : For ideal birth spacings of conventional contraceptions and oral pills are made available with the district / sub-Division /Block level in respective hospitals and F.W Centers which are distributed by the paramedical workers to the eligible couples according to their choice and need. More than 3 lakhs conventional contraceptives users and one lakh oral pill users are being benefited every year in the state. As the use of conventional contraceptives prevents transmission of AIDS through sexual intercourse, advocacy on more popularizing the use of conventional contraceptives has been taken up the state Govt . through awareness campaigns .

d) Urban family welfare Centers: In the state, there are 10 Urban F.W centers out of which four centers are run by voluntary organizations and local bodies at Puri, Cuttack , Berhampur and Rourkela and the Govt. Hospitals of Cuttack, Sambalpur, Bhubaneswar and Biramitrapur. These canters provide family welfare services to urban population.

e) Urban Revamping scheme: Urban Revamping scheme caters health service to the slum population of the urban areas, mostly focusing on material and child health. Under this scheme 8 nos. of Health posts have been established which are located in three major cities like Cuttack , Bhubaneswar and Rourkela . The Female health workers and the L.H.Vs motivate the urban slum dwellers for their better acceptability to F.W programmed.

f) Green card Scheme: The state Govt. has introduced the Green card Scheme since 19th October,1983 to more popularize the permanent sterilization either through Vasectomy or Tubectomy for couples having one or two living children only.

g) Rural family welfare centers: In Orissa, 314 Rural F.W. centers are functioning in all the 314 Blocks which are attached to the P.H.Cs. /C.H.C.s .These centers play a key role to cover the 87% of the state population to cater family welfare services. These centers give feedback to the implementation and achievement of the programme through the district F.W. Bureau.

h) Sub- Centers : For every 5000 population in plain areas and for 3000 population in tribal areas and hilly areas, one sub center has been established as per national norm . At present, there are 5927 sub-centers in the state which are the village level or grass-root level service centers to cater health care to the community. They look after safe deliveries, fixed day immunization, I.E.C (Information Education & Communication(activities, supply of C.C and oral pills , maintenance of eligible couple registers, administration of O.R.S (Oral Rehydraton Solution), distribution of I.F.A. (Iron Folic Acid) tablets, etc.

i) Medical Termination of pregnancy (M.T.P) : At present 404 centers have been recognized and authorized by the state Govt. s both in Govt. and non-govt. sector to help the pregnant mothers desiring to undergo M.T.P for their unwanted pregnancies . More than 30,000 M.T.P are conducted by these centers per annum.

j) Reproductive and Child Health (R.C.H) The concept of R.C.H is to provide to the beneficiaries need- based, client -centered, demand - driven, qualitative and integrated health care on reproductive and child health care.

Besides, National Rural Health Mission (NRHM) has been launched by Govt. of Indian on 12th April ,2005 in Orissa along with 17 others states which have weak public health indicators in order to provide effective health care to the entire rural population of the states .

Table 3 : Vital health indicators of Orissa and India

Indicators	Orissa	India
Crude Birth Rate	23	24.8
Rural	27.3	26.4
Urban	19.4	19.8
Crude Death Rate	9.7	8.0
Rural	16.2	8.7
Urban	6.3	6.0
Maternity Rate	367	407
Infant Mortality rate	83	60
I.M.R (Rural)	86	66
I.M.R(Urban)	55	38
Total Fertility rate	2.7	3.2
Perinatal Morality rate	61	45
NMR Rural	64	49
NMR Urban	38	28
Postnatal Matality Rate	36	24

Indicators	**Orissa**	**India**
PMR Rural	36	26
PMR Urban	35	16
Still Birth Rate	15	10
SBR Rural	16	11
SBR Urban	10	08
Life expectancy at birth	61.64	63.50
Mean age of Marriage	19.8	19.6
Mean age of Marriage Rural	19.7	19.3
Mean age of Marriage Urban	20.7	21.0

Source : Health & Family Welfare year book 2004-2005

However, unprecedented population proliferation is a man- made menace. It is a preventive disaster. Given the will, choices and support system, people will take reasonable course of action .Responsibility for the future should begin today. Family planning programme needs to be re- oriented with beyond family planning approach. Education, development and awareness are the best contraceptives. Of course, the problem of rapid population growth need not be accorded the topmost priority ; socio -economic development would take care of it . Unless and until education plays a key role, people themselves become conscious, a change comes in their attitudes and values, and socio -economic progress takes place in a remarkable way, simple planning and implementation of various schemes and programmes related to check population growth will not be fruitful and cannot fulfill our purpose .

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20. DECLINING GROWTH OF TRIBAL POPULATION IN ORISSA

Tribal people existed the entire lithic period in Orissa. However, it is difficult to estimate their population during lithic period due to non-availability of data. In this paper the origin of tribes, their population and growth are discussed. It is observed that the tribal growth rate is lower than that of the non-tribal since 1961-71. The proportion of tribal population is also gradually declining since 1961 Census. Interestingly 28 tribes have registered decline of population during 1991 and 2001. Mortality, migration and under reporting due to ethnic confusion are the reasons of the decadal decline.

Introduction:

Prehistoric sites from different parts of Orissa reveal that human beings were existed during the Paleolithic period in India around 200,000 years to 20,000 years ago. This can be authenticated by the Homo sapiens migration from Africa during 80,000 to 75,000 years back (Scupin 2005). Distribution of Mesolithic population during 20,000 years to 10000 years and Neolithic population during 10,000 years to 4,000 years ago (8000 B.C. to 2000 B.C.) was also evident from various prehistoric studies (Bhattacharya 1992 & Mishra 2001). It is probably, these people are the original settlers (the aboriginals) or the so called Tribals of Orissa (Dash,2007). It would be difficult to describe the population and its growth of the lithic period in Orissa. However, Poleo-Demographic methods can be used by the present scholars to estimate the population of various lithic sites in India. Interestingly Anthropologists have tried to established the tribal origin of Orissa for 2000 years back, roughly 1st century B.C. (Elwin 1943,Roy Burman 2005). Prof. Mahapatra is of the opinion that a majority of the tribes existed in Orissa for millennia (many thousand years) but some tribes like Santhal,

** Anvesa, Jounal of FMU, Baleswar, Vol-3, No.1, Page. 43-46, 2008*

Ho and Kharia have migrated to Orissa from Chhotnagpur areas during 10th century (Mahapatra 2006)

However, the focus of the present paper is given on the growth of Tribal population since 1941 Census, after Orissa became an independent state in 1936. In 1941 Census 44 tribes became Scheduled after the inclusion of their names in the Odisha list of Tribes. Further, during 1951 & 1961 Censuses18 Tribes were also included in the Odisha list of Tribes making the total 62 Schudeled Tribes. Since 1961 there was no further inclusion rather there was some confusion in their names which is not yet corrected for examples:

a) Birhor, "Mankidi and Mankidia,
b) Munda and Mundari
c) Kol,Ho, Kolho and Kollohora
d) Binjhal and Binjhia,
e) Bhumia and Bhuian
f) Bhumj and Desua Bhumji
g) Karwar, Kharia, Kharwar,
h) Kora and Korua,
i) Kandha and Kutia
j) Lodha and Sabara

Such confusions have created a lot of demographic problems which have affected their Socio-economic development (Dash and Mahapatra-1977). In the present paper the tribal names as per the Census list are used for analysis.

Tribal Population and Growth:

Declining population and growth of tribal population is a concern to the Ministry of Tribal welfare as to the Anthropologists and Demographers. The comparative growth trend of the tribal and non-tribal since 1941 Census is given in Table-1.

Table-1 shows that the tribal population of Orissa had an increasing Growth Rate (GR) from 1941 to 1961 and that of the non-tribal from 1941 to 1971, although of the non-tribal from 1941-1971, the

GR during 1941-1961 and that although the GR during 1941 to 21 was very low. Tribal after 1961 and Non-tribal after 1971 have registered a declining GR. However, The G.R of non-tribal is higher compared to the tribal after 1971 census. Different reasons are responsible for such scenario.

Table-1 : Tribal proportion and comparative Growth in Orissa

Census	Population(in millions)			Proportion of	Decadal Growth	
Year	Total	Tribal	Non-Tribal	Tribal Population	Tribal	Non-tribal
1941	13.8	2.6	11.2	18.84	-	-
1951	14.6	3.0	11.6	20.55	15.38	03.57
1961	17.5	4.2	13.3	24.00	26.67	14.66
1971	21.9	5.1	16.8	23.29	24.63	26.32
1981	26.4	5.9	20.5	22.35	19.51	22.02
1991	31.7	7.0	24.7	22.08	18.64	20.49
2001	36.8	8.1	28.7	22.01	15.71	16.19
2011	43.1	9.5	33.6	22.04	17.28	17.07

Source: calculated from the Census Data of Orissa 1941 to 2001 & Projected figures for 2011 (Higher Growth rate is predicted due to the declining Death Rates and Infant Mortality Rates)

First, during 1941 and 1951 a large proportion of population died due to drought, famine and other obvious pre-independent factors, for which the GR of 1941-51 was much less. Secondly, after independence the government took some drastic measures to improve the health conditions of the people which is responsible for the decline of the death rates and consequently resulting a high growth rate during 1951-61 and 1961-71. Thirdly, during 1951-61, the tribal show a very high growth due to the inclusion of 18 communities in the list of schedules of tribes.

After 1961-71 the tribal population shows a declining Growth Rate up to 1994-2001. During these decades the GR of Non-tribal also registered a declining trend but their GR remains always higher than that of the tribal. This is also evident from the declining proportion of tribal since 1971 census.

Table-2 :Tribes showing declining population during 1991-2001

Name of the ST	Population 1991	Population 2001	Decadal Number	Decline Percentage
Baiga	1556	539	-1017	-65.36
Bhumia	109538	103937	- 5995	- 05.44
Binjhal	119929	118116	-1813	01.51
Birhar	825	702	-123	-14.91
Chencha	275	028	-247	-89.92
Dal	19867	15404	-4463	-2246
Desiabhumij	1810	177	-1633	-9022
Dharua	11512	9247	-2265	-19.68
Gadaba	67138	66920	-218	-00.32
Gaoudia	3588	1354	-2234	-62.26
Ghara	1553	275	-1278	-82.29
Ho	50892	43113	-7779	-15.28
Holva	13662	10462	-3200	-23.42
Kowar	9582	7580	-2002	-20.89
Kharwar	3280	1381	-1899	-57.89
Kol-Lohora	12321	9642	-2679	-21.74
Korena	1989	1280	-79	-35.65
Kotia	28607	22525	-6082	-21.26
Koya	141927	122555	-19392	-13.66
Mankidi	1150	130	-1024	-88.69
Mankirdia	1491	1050	-441	-29.58
Mundari	31147	23364	-7783	-24.99
Omanatya	25915	23364	-2551	-09.84
Paroja	535336	317301	-36035	-10.19
Pentia	11399	7271	-4128	-36.21
Rajuar	3146	2803	-338	-10.74
Saunti	96251	94734	-3517	-03.65
Tharua	1595	453	-1142	-71.59

Source: calculated from census Data, Orissa, 1991 & 2001

The main reason for the higher declining growth rate and declining proportion among the Tribal is higher mortality, particularly infant mortality, among them. High interstate migration for the search of job is another reason for the declining Growth Rate.

Tribal population Decline:

Surprisingly, during 1991 and 2001 census twenty-eight Tribes, out of the sixty-two, have shown declining population, see table -2. it is interesting to note that some major Tribes like Bhumija, Binjhal, Gadaba, Ho, Koya, Paroja and Sounti have registered declining population during the last decade of the 2nd millennium, the table also reveals that the numerically minor tribes have shown a very high percentage of population decline during the same period. For instance, tribes showing over 50% decline are Baiga, Chenchu, Desia-Bhumji, Ghara, Khawar, Mankidi and the Tharua, see Table-2.

Various reason, either individually or combined, are responsible for such a large-scale decline of tribal population. Besides the demographic factors (Mortality and migration), mentioned earlier, there are two other factors accountable for the decline of tribal population. First, the wrong reporting or under enumeration during census and second, the long prevailing ethnic confusion in the list of the Tribes. For ascertaining the actual factors of the decadal decline of Tribal population and for an eradicating the ethnic confusion a large-scale comprehensive study among the Tribes of Orissa is highly essential. This would not only solve the long-standing ethnic confusion but would also be very much helpful for the government to take up action plans for preventing the decline of tribal population.

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21. EDUCATIONAL EMPOWERMENT OF THE TRIBES OF ORISSA

Time has tested that education is an inevitable force for the holistic development of any society or nation. As light penetrates the darkness and we could able to see the beauty of nature so act the education to remove darkness of our mind (ignorance) and we could see through. The fortunate few who know this truth educate themselves, their children and try to convey this message as per their capacity. Interestingly, the indigenous people (the so-called TRIBES) of Orissa are far behind the fortunate ones in all aspects, especially education.

Thanks to the different special educational measure of the government since second plan period by which the tribal literacy could increase from 7.36% in 1996 to 37.37% in 2001. (During the same period the same literacy has gone up from 21.66% to 63.08%). However, the educational status of the tribal female is till worse compared to their male counterparts (male 51.48%, females 23.37%) as per 2001 Census . This is not sufficient for any community to stand on its own. This is merely the literacy standard of the 8.15 million tribes of Orissa. If we try to find the percentages of the tribal matriculation in the state is nearly 1% only. Needless to say, the negligible figures of higher, technical and medical education among the tribes. This is because of the fact that most of tribal students are drop out and half educated. These drop out create more problems inside and outside the tribal society.

The following are some of the important causes responsible for the low literacy and drop out among the Tribal children.

Factors Responsible for Low Literacy among the Tribal

1. Low enrolment of Tribal children due to their socio-cultural practices.
2. Low attendance of the enrolled students.
3. High dropouts due to no interest in education.
4. Poverty is one of the Powerful factors.
5. Distance of the school from the villages.
6. Poor communication of the Scheduled areas.
7. School timing is not conductive for the tribal people.
8. Lack of interest of the teachers for which quite frequently they remain absent.
9. Language of the study materials sometimes create problems. (Medium of teaching)
10. No element of the Tribal culture and Environment in the syllabus
11. Less number of schools in Tribal areas.
12. Lack of proper monitoring and coordination by different Govt. Department (Education, Tribal Welfare, Forest, Health and Finance).

After a lot of Discussion with Anthropologists and Educationists Government has laid down the following plans and programmes for the growth of the literacy among the tribes.

Government Programmes for the Educational Empowerment.

1. Opening of the Anganwadi centers in every village.
2. A primary school in every village having a population of 500 individuals.
3. A Technical school covering a population of 5,000 individuals.
4. Monetary help to every BPL student.
5. Incentives to the families those who sent their children to school.
6. Free educational materials and books to every student.
7. Mid-Day meal to all students and special nutritional supplements to the Anganwadi children.

8. Residential school for primary students (Sevashram School), Highschool students (Ashram school), girl students (Kanya Shram School) are opened.
9. 22% Percent reservation for admission in to the colleges with stipend provisions.
10. Education for all children belonging to age group of 6-14 years.
11. Opening of the Educational complexes for primitives Tribal Groups.
12. Selected Bilingual books (Primers) for beginners.

However, the results of the above programmes are not much encouraging.

A time has come to do something serious about the educational empowerment of the Tribes in generals and primitive tribes in particular. Government alone cannot to this. It needs a concerted and continuous efforts by the government, non-government organization and corporate groups. The effective Public Private Patnership (PPP) can solve the problems to many extend .

I think KISS (Kalingg Institute of Social Sciences) has shown the way to the Nation. Under the roof they have planned to impart education from K.G. to P.G. to 15,000 tribal students. (Now in 2021 the student strength of KISS is over 30,000). This would be a grant educational complex which would reduce the distance problems, teachers' problems and problems of the student's food, health and educational materials. I hope, in these circumstances the drop outs would be minimum. I am sure, if the other organization and corporate groups come forward with such innovative ideas to educate the tribes with a suitable and amicable environment then after a decade or two the next generation tribes will take over and take care of their state as well as of their motherland. I am cocksure KISS is now pioneer in the field of Tribal Education in the World.

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22. REPRODUCTIVE PERFORMANCE OF THE BHUMIJA WOMEN: AN EMPIRICAL STUDY OF A TRIBAL VILLAGE, BALESWAR, ORISSA

Abstract : *This paper reflects the reproductive performance of the Bhumija women of a tribal village of Baleswar, Efforts have been made to find out the factors affecting fertility, such as the age at marriage, family planning practices, etc. Average number of conceptions, average life birth, uterine wastage and surviving offsprings are considered as reproductive measures. The study reveals that the mean age at marriage is 16years; the mean age at first child-birth is 18.14 years. There is a smaller number of uterine wastage and post-natal death. The average number of conceptions per woman is 3.87 and the average number of live births per woman is 3.28. The Bhumija population exhibits very low pre-partum reproductive loss (0.13) and post-natal loss(0.10).*

Introduction :

Reproductive health is defined as the condition in which the reproductive process is accomplished in a state of complete physical, mental and social well-being and is not merely the absence disease or disorders associated with the reproduction is carried to a successful outcome in the form of infant and child survival, through growth and healthy child development. It finally implies that woman can pass safely through pregnancy and child birth, that fertility regulation can be achieved without health hazards and that people are safe in having sex. The United Nations resolution reflects that the right of men and women to be informed and to have access to safe, effective, affordable and acceptable methods of family planning of their choice for the regulation of fertility which are not against the law, and the right of access to appropriate health-care services that will enable women to of

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safely through pregnancy and child-birth and provide couple with the best chance of having a healthy infant (UN 1995). A World Health Organization report defines women's reproductive health as empowering women to have control over their own fertility and sexuality with maximum choice and minimum health problems (WHO 1991)

Reproductive health includes the age at marriage, fertility regulation, breast feeding and infant care practices. Fertility refers to the actual reproductive performance whether applied to an individual or a group. As defined by Henry (1953) the French Demographer, Natural Fertility is "Fertility of a Human Population that makes no deliberate effect to limit birth."

One of the reasons for growing interest in the study of fertility is primarily determined by fertility and that the bulges and gaps in this age structure can have serious repercussion, with social, economic and political overtones. The other reason is that because of methodical development such as the sample survey method and the introduction of new techniques of fertility measurements, like cohort fertility, the study of fertility could be undertaken from various angles.

Though the birth of a child basically a biological phenomenon, child rearing in any society occurs in a social setup and is therefore, affected by social structure as well as social customs. In the study of fertility, it is necessary to understand the biological aspects of fertility as well as the effects of various societal norms and customs related to the process involved in child bearing and child rearing.

The biological limits imposed in child bearing by such factors as age and sex can be easily recognized. Only women can conceive and give birth to children and that too, within certain age limits. A woman becomes biologically fecund, capable of bearing a child, with onset of menstruation. Her capacity to bear children comes to an end with menopause that is when menstruation ceases.

Hendriks (1995) identifies the 1980s as the turning point whenpolicy makers, scientists and women activists started to acknowledge reproductive rights and reproductive health. Lane (1994)

considers reproductive health as a neglected area and calls for research in the field of reproductive health policies. Fathalla (1992) and Cook (1993) describe that reproduction is the condition in which the reproductive process is accomplished in a state of complete physical, mental and social well-being and is not merely that absence of reproductive disease or disorders.

Sex and age are the basic characteristics or the biological attributes, of any group which not only affect its demographic but also its social, economic and political structure, as they influence birth and death rates, marital composition, internal and international migration , planning regarding educational and medical services and housing etc. Population data are invariably classified by sex and age is also very important because they are the visible, indisputable and convenient indicators of socio-demographic status. The present paper highlights the state of reproductive health of a Bhumija village of Orissa.

The Tribe and the Village :

The Bhumija is one of the Scheduled Tribes of Orissa and are concentrated thickly in the districts of Baleswar, Mayurbhanj, Sundargarh and Keojhara . According to 1991 census , the total population of the Bhumija was, 1,78,214 and as per 2001 census it is 2,48,144. This tribe has shown a very high decadal growth rate of 39% against the total tribal growth rate of 16% during the decade.

The Bhumija society is mainly divided into four endogamous groups such as the Tamudia Bhumija, Haldipokharia Bhumija, Teli Bhumija and Dehuri Bhumija. Of these, the Tamudias occupy the highest place in social precedence because of their traditional occupation of shaving. Next to them are the Haldipokharia Bhumija. The females of this section used to serve as midwives among other Bhumija categories. Teli Bhumija occupies the third position. Their traditional occupation is oil extraction, particularly from till and mustard. But now a day the traditional occupation is almost lost. The Dehuri Bhumija officiates as the village priest in any of their religious functions. Each section forms and endogamous group of its own. Normally marriage outside the group in not allowed.

Rice is their staple food and is eaten throughout the year .Like Hindus, they eat dal and vegetable curry if they can afford to. They abstain from taking beef and pork. Rice beer is their favorite drink.

Most of the families among the Bhumijas are of nuclear type, consisting of husband, wife and unmarried children. The children set up their own family soon after their marriage. They are patrilineal i.e. Descent and inheritance is traced through father's side.

The village under study named Chaturkhunta has seventy-two households belonging to the Tamudia Bhumija. Other tribes like the Santal, Kandha and a few other tribes and caste households are also living in this village. The village is situated on the mountain slope of Nilagiri. Although a multiethnic village, it is dominated by the Bhumija tribe.

The house is not arranged in any order. Most of the houses have two rooms. The rooms are utilized as kitchen, bedroom, store room and cattle shed is normally attached to most of the house. Their house comprises a varanda in the front which they use for entertaining guests. All the rooms have permanent doors but no windows. Houses are constructed out of bamboo and sal saplings tied with grass ropes and thatched with straw, (Daspatanik, 2004).

Material and Methods :

The data for the present paper are collected from Chaturkhunta village of Nilagiri block. Baleswar. The survey was designed to collect data on different household information. Reproductive history and family welfare, Reproductive health and post-natal care. Three different schedules (Household schedule and reproductive schedules) were prepared and pre-tested before the final interview. The head of the household was interviewed for the household data (Schedule-1). However, for the reproductive data the ever-married women were interviewed (Schedule-2 and 3). Data were collected from 58 household (out of the total 72)as the remaining households were not available during data collection. Mostly interview method was adopted for data collection. Case-study and non-participant observation methods were also adhered to. The Ever-married women of the community were the Respondents.

Result and Discussion :

The age, sex composition and marital status of the population of the Bhumija households are presented in Table-1.

The Table-1 shows that the total population of the 58 Bhumija households in 260, (133male and 127 female). Sex ratio of the population is 1050 males per1000 females which indicate a high sex ratio. Median age of male is 25.17 years and that of the female is 23.76years. The child-women ratio (P0-4/W15-44) and (P5-9/W20-49) are 611 and 788 respectively per 1000 women. This shows demographically it is a young population and the birth during the last decade was very high.

The total dependency ratio of the Bhumija population is 0.8. Further, the child dependency is 0.7 and the aged dependency is 0.1.It shows that the child dependency is very high among the Bhumija community of this village which also speaks of their relatively high birth rates during past decades.

Table-1: Distribution of population by age, sex and marital status.

Age group	Number of	Male		Female		Marital Status						
In year	individuals	No	%	No.	%	Male			Female			
						UM	CM	W	D/S	UM	CM	W
D/S												
0-4	33	19	57.58	14	42.42	19	-	-	-	14	-	- -
5-9	41	17	41.46	24	58.54	17	-	-	-	24	-	- -
10-14	26	11	42.30	15	57.7	11	-	-	-	15	-	- -
15-19	18	10	55.55	8	44.44	10	-	-	-	7	1	- -
20-24	23	11	42.83	12	52.17	11	-	-	-	-	12	- -
25-29	29	16	55.17	13	44.83	2	14	- -	-	13	-	-
30-34	26	14	53.85	12	46.15	-	14	- -	-	12	-	-
35-39	18	14	77.78	4	22.22	-	14	- -	-	4	-	-
40-44	09	4	44.44	5	55.56	-	4	-	-	-	5	- -
45-49	10	4	40.00	6	60.00	-	4	-	-	-	4	1 1
50-54	11	5	45.45	6	54.55	-	5	-	-	-	2	4 0
55-59	3	2	66.67	1	33.33	-	2	-	-	-	0	1 -
60+	13	6	46.15	7	53.85	-	5	1	-	-	1	6 -
Total	260	133	51.15	127	48.85	70	62	1	0	60	54	12 1

UM-unmarried, CM-currently married, W-widowed, D/S-divorced/ separated, EM-ever married EM=(CM +W+D/S)

The age at marriage is considered to be a determinant of fertility. Table 2 shows the age at marriage of the ever-married women. The lowest mean age at marriage (14.4years) has been observed in the age group of 45 years and above. The mean age at marriage decreases as the age group increases. Thus, it can be told that the younger generation Bhumija girls prefer to marry slightly late.

Table-2 : Age at marriage of the ever-married women.

Present Age Group	Number of respondents	Age at 1st marriage				Mean age of marriage in years
		Below 13Yr	13-15yr	16-18yr	19-21yr	
15-19	1	-	-	1	-	18
20-24	12	-	2	6	4	17.5
25-29	13	-	2	9	2	17.0
30-34	12	-	5	4	3	16.5
35-39	4	-	2	2	-	15.5
40-44	5	-	3	2	-	15.2
45+	20	1	16	3	-	14.4
Total	67	1	30	27	9	16.0

Table-3: Age at first child birth of the ever-married women

Age at Marriage	Number of respondents	No.Live birth	Age at first child birth			Mean age first ChildBirth
			15-17yrs	18-20yrs	21-23yrs	
-13	01	-	01	-	-	16.0
13-15	30	1	22	7	-	16.7
16-18	27	1	3	21	2	18.9
19-21	9	2	-	1	6	21.6
Total	67	4	26	29	8	18.14

**Respondents not having births were excluded from the calculation of mean age at 1st child birth.*

The mean age at marriage is 16.0 years for females of this tribal society which is similar to the mean age at marriage in India (WHO 1991). The permitted female age at marriage (in India) i.e., 18 years. Table-3 reveals the mean age at first child birth which is 18.1 years. The gap between the age at first marriage and the age at first child birth is 2.1 years. It is evident that although girls marry at an early age, they become mothers around 19years of age which exposes them to health risks. The data of Table - 4 highlights that maximum number of women maintains two years of gap between two consecutive births (39.68%).

Table-5 presents the fertility performance of the ever-married women. The total number of conceptions, uterine wastage, live births and children survived are some of the major findings of this table. The average rate of conception per woman is 3.87 and average number of live births per woman is 3.28. (Number of live births/Total number of ever married women) The conceptions terminating before birth are taken as "uterine wastage" or uterine loss. This is either due to biological reasons or occupational hazards .This population registers very low pre-partum reproductive loss (0.13) in comparison to other tribes (Ghoshmaulik 1996) . It is only 13.13% of the total number of conceptions of the Bhumija respondents.

Table- 4 : Duration between two successive live births

Present	No of	1 yr		2yr		3 yr		4yr		5 yr		open end	
age grp.	mothers	No	%	No	%	No	%	No	%	No	%	No	%
15-19	1	-	-	-	-	1	(100)	-	-	-	-	-	-
20-24	10	1	(10)	2	(20)	2	(20)	-	-	-	-	5	(50)
25-29	13	1	7.69	6	46.15	2	15.38	-	-	1	7.69	3	23.08
30-34	11	1	9.09	5	45.45	2	18.18	1	9.09	2	18.8		
35-39	4	-	-	3	75	-	-	1	25	-	-		
40-44	5	1	20	2	40	1	20	1	20	-	-		
45+	19	3	15.79	7	36.84	4	21.05	2	10.53	3	15.79		
Total	63	7	11.11	25	39.68	12	19.05	5	7.94	6	9.52	8	12.69

Table- 5: Conception and Child survival (fertility history)

Present age group		No of ever married women		Total No. of Conception		No. of abortion per Conception		No. of still birth per Conception		No. of live birth per Conception		No. of Child dead per Conception		No. of survivors per 11/9	Post Natal loss
		No	Av	No	Av	No	Av	No	Av	No	Av	No	Av		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)		(14)	(15)
15-19	1	2	2	0	-	0	-	2	1	0	-	2		1	0.0
20-24	12	19	1.6	2	0.1	0	-	17	0.9	1	0.1	16		0.8	0.1
25-29	13	37	2.9	2	0.1	3	0.1	32	0.9	0	-	32		.9	0.0
30-34	12	43	3.6	4	0.1	0	-	39	0.9	3	0.1	36		0.8	0.1
35-39	4	17	4.3	1	0.1	0	-	16	0.9	2	0.2	14		0.8	0.3
40-44	5	27	5.4	3	0.1	2	0.1	22	0.8	5	0.2	17		0.6	0.2
45+	20	114	5.7	9	0.1	8	0.1	92	0.8	12	0.1	80		0.7	0.1
Total	67	259	3.9	21	0.1	13	0.1	220	0.9	23	0.1	197		0.8	0.1

Table - 6 : Age specific fertility rates and total fertility rate

Present age group	No. of women	No of live births during last year			ASFR
		boys	Girls	Total	5/2 x 1000
(1)	(2)	(3)	(4)	(5)	(6)
15-19	8	-	1	1	125
20-24	12	2	1	3	250
25-29	13	1	2	3	230.77
30-34	12	-	-	-	-
35-39	4	-	-	-	-
40-44	5	-	-	-	-
Total	54	3	4	7	= 605.77

TFR = 605.77 x 5/1000=3.03

Postnatal Loss per women has been estimated by weighing the non-surviving offspring against the live born (col-11 /col-9) is 0.10.The index of servivality has been established as surviving offspring against conception (col-13/col-3) and expressed in terms of 100. The index of servivality calculated in this tribal population is 76% . The study reveals that both the uterine and the postnatal loss are very low among the Bhumija respondents. Due to this the index of survivality becomes high i.e., 76%.

Table - 7: Family Welfare Data

Methods	No. of individuals
1. Sterilization	
a. Vasectomy	3
b. Tubectomy	16
2. I.U.D.	1
3. Oral Contraceptive	10
4. Conventional Contraceptive	14

Couple Protection Rate (= (19X1) + (1X0.95) + (10 X0.95) + (14X0.5)= 36.45

The crude birth rate is an important measure of fertility as it directly points to the contribution of fertility to the growth rate of the

population. The CBR of the present population is 26.9 per 1000 population. Table -6 shows the age specific fertility rate of this population. The age specific fertility rate of the age group 15-19 is reduced due to the increase in the age at marriage and very less proportion of married females in this age group. The general fertility rate (GFR) computed is 129.6 births per 1000 women in the child bearing age group during last one year. From table -6 the TFR calculated is 3.03 which indicate the total number of children that would be born to a Bhumija woman through her reproductive span at the current level of fertility.

The Sex-Age Adjusted Birth Rate (SAABR) eliminates the effect of demographic composition. It is the number of births per 1000 women (a weighted aggregate of number) in various five-year age group from 15 to 44.

SAABR =Number of live births in the year/ (1 x W1) + (7 x W2) + (7 x W3) +(6xW4)+(4x W5)+(1x W6)

Where W1, W2, W3, W4, W5, W6 are the number of women in the age groups 15-19, 20-24, 25-29, 30-34, 35-39 and 40-44 respectively.

The SAABR calculated in the present study is 25.36 per thousand populations. From Table-7, the CPR (Couple Protection Rate) calculated is 36. Thus, all these findings suggest that the present Bhumija fertility is comparatively low. This is due to the higher rate of Family Planning acceptance, as is evident from table 8, compared to other tribes.

From table 8 it is evident that the average number of children ever born to non-sterilized women is higher than the average number of children born to the sterilized women. The impact of family planning practices is clearly observed in the fertility of the woman.

Table 8: Children ever born to sterilized women and non-sterilized women (45+)

No of Stz Spouses	Children ever born to Stz spouse	Average	No of Non Stz (W45+)	Children ever born to Non Stz (W45+)	Average
19 (M3 + F16)	59	3.1	11	48	4.4

Table - 9: Distribution of E.M.W. by age group and number of children ever born.

Age grouop	No of children ever born								Total		Av
	0	1	2	3	4	5	6	7+	W	Ch	
15-19	-	-	1	-	-	-	-	-	1	2	2
20-24	2	4	5	1	-	-	-	-	12	17	1.4
25-29	-	3	4	4	1	1	-	-	13	32	
2.46											
30-34	1	-	3	2	3	3	-	-	12	39	
3.25											
35-39	-	-	-	1	2	1	-	-	4	16	4.0
40-44	-	-	1	-	2	-	2	-	5	22	4.4
45+	1	-	1	2	4	6	4	2	20	92	4.6
Total	4	7	15	10	12	11	6	2	67	220	3.28

W =Women ,Ch = Children , Av = Average

Fertility - the actual reproductive performance, (Bhende and Kanitkar 2001); the actual occurrence of births, especially live-births (Cox 1959) is a time dependent genetic concept. Here, table 9 highlights the actual reproductive performance of a group of ever married women and provides information on the average number of children ever born per married women for different age groups. It is found that the average number of children ever born per woman increases as the age group increases. This is in accordance with the findings of Singh (2006) who has also reported that there is a tendency of increasing number of live-birth with the increasing chronological age of mother due to longer exposure of married life. However, that woman of his later three age groups show almost a stable average. This is possible due to the acceptance of terminal methods in the later age group. This is also evident from the comparative data of Table 8 which indicates that the acceptance of family planning programme has some impact on the average number of children ever born.

Conclusion and Recommendations:

Reproductive performance of women includes the age at marriage, age at first child birth, duration between two pregnancies,

family planning practices, reproductive loss, index of survivality etc. The presen empirical study shows that the age at marriage does not have any impact on the fertility rate. Another important finding of this study is that though the mean age at marriage is 16.0 years and the mean age at first child-birth is 18.1 years still the prenatal reproductive loss and post-natal loss are less compared to other tribal population. The index of survivality helps in overall assessment of reproductive success. The Bhumija population exhibits a high index of survivality i.e., 76, which indicates a high acceptance of reproductive health care by this community. This is possible due to the easy accessibility of the health care service because of the close proximity of the District Headquarters. The high rate of survivality has a decisive impact on the Crude Birth Rate (CBR) which is 26.9 and on the Total Fertility Rate (TFR) which is 3.03 . The crude birth rate (26.9) and the Total Fertility Rate (3.03) of the present study is in agreement with the data from rural India (CBR-26.4, TFR-3.2), (Census of India 2003). The Sex-Age Adjusted Birth Rate (SAABR) is found to be 25.36 per thousand women and the couple protection rate (CPR) is 36. The couple protection rate of the present study is 36 whereas the CPR of Orissa is 39 (Mukerjee 2000).

All these measures show that the recent Bhumija fertility is comparatively low. This shows that the family planning programme and the reproductive health care have played a vital role in reducing the fertility level. From the present study it can be concluded that the next decadal (2001-2011) growth rate of the Bhumija tribe would be much less compared to the last decadal (1991-2001) growth. This is definitely due to the awareness towards small family norms among the Bhumija Population , However, trends in fertility needs to be monitored regularly and appropriate measures should to be taken to raise the status of women by introducing the promoting effective family planning programmes.

23. SOCIO-ECONOMIC VARIBLES AND BIO-CULTURAL DETERMINANTS OF FERTILITY OF A SEMI-NOMADIC TRIBE OF ODISHA

This is an endeavor to study the plausible causal socio-economic variable and bio-cultural pathways influencing human fertility among the remotely located seminomadic tribe of Odisha. The present paper deals with the fertility of 156 Mankirdia women. Efforts are made to study the bio-cultural variables and societal factors affecting fertility. The observation of fertility of the women is 3.24. prolonged breastfeeding and prevalence of widespread traditional contraception methods are identified need to be monitored regularly and appropriate measures should be taken to raise the status of women.

Introduction :

The tribal population constitutes a significant proportion of Odisha's total population. According to the 2001 Census, Odisha has more than 8.1 million tribal population who constitute 22.2% of the total population (Census of India, 2001). Tribes differ in various ways and degrees from the general population and also differ considerably in socio-culture life among them. The tribes live in the forest ranges and naturally isolated regions and are known by different names. The tribes are known by many names such as Aboriginal, Adivasi, Janjati, etc. They are considered as the original inhabitants.

Most of these tribal communities are faced with similar health situations accentuated by widespread poverty, illiteracy, malnutrition, poor health and hygienic condition. The variation in the social, cultural and economic practices brings out a difference in the level of fertility between various populations. Thus, for better understanding the causes of differential fertility, the present study is undertaken to contemplate on both the socio-economic and bio-cultural features of the tribe. The focus o nity were the respondents.

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Ressult and Discussions :

Table 1- General Socio-Cultural Characteristics of the Respondents

Ser No.	Variable		Frequency	Percentage
1	Possession of Transport			
		Yes	42	26.9
		No	114	73.1
2	Possession of any electronic item			
		Yes	21	13.5
		No	135	86.5
3.	Occupation			
		Unemployed	59	37.8
		Daily Labour	48	30.8
		Rope making	23	14.7
		Minor forest collection	26	16.7
4	Monthly income of the family			
		<Rs 1000/-	125	80.1
		Rs 1000/- 2000/-	31	19.9
		Rs2001/-3000/-	-	-
		>Rs 3000/-	-	-
5	Average monthly family income		Rs 1099/-	
6	Educational Status			
		Illiterate	153	98.1
		Lower primary	2	1.3
		Upper primary	-	-
		Middel Exam	-	-
		High School	1	0.6
7	Age of Respondents (Age groups in years)			
		15-19	36	23.1
		20-24	30	19.2
		25-29	32	20.5
		30-34	9	5.8
		35-39	24	15.4
		40-44	12	7.7
		45-49	13	8.3
8	Mean age at marriage		15.04 years	

Socio-Economic Background of the Women:

Table 1 illustrates the socio-cultural background and the economic status of the respondents. Majority of the respondents were between 15-19 years (23.1%) of age followed by the age group 25-29 years (20.5%) .This shows that demographically it is a young population . The table highlights the poor socio-economic status of the respondents. Only 31 percent of the respondents work as daily labour while the rest are unemployed or depends upon minor forest collection. Majority of the respondents do not possess any transport (73.1%) or electronic have their monthly family income is Rs 1099/- . It is also evident from the table that most of the respondents are illiterate (98%) . The age at marriage, which is an important socio-cultural and demographic variable influences the fertility level age at marriage in India i.e., 18 years.

Bio-Cultural Variables :

Beside the socio-cultural variables, various biological factors also influence human fertility. The plausible causal biological pathways influencing human fertility are being manifested in the present study.

Human fertility refers to the actual reproductive performance of the women which operates more of less within a biological and universal phenomenon, several socio-cultural norms and practices and physical environmental conditions are influencing the fertility level of a population. There are factors, which manifest directly through the body physiology of human beings and some others do so through intermediate factors such as behavior, culture etc. The socio-cultural theories have focused on the attitude level for explaining the reproductive behavior (Dumont, 1890; Davis, 1956; Carlson, 1966).Visaria and Visaria (1995)described how fertility behavior of women determined by number of social and biological factors.

Age at Menarche:

Age at menarche, one of the important biological determinants of fertility shows a range varying between 10-18 years among the girls of 24countries of the world (shah, 1958).

Table - 2 : Age at Menarche

Age in years	Frequency	Percentage
10	-	-
11	12	7.7
12	2	1.3
13	85	54.5
14	2	1.3
15	48	30.8
16	6	3.8
17	1	0.6
Total	156	100

(Mean age at menarche - 13.6 years)

It is observed from table - 2 that the maximum percentage of Mankirdia women menstruated at the age of 13years (54.5%) and 15 years (30.8%). The mean age at menarche is found to be 13.6 years. It may be attributed that low level of socio-economic condition, malnutrition, environment, etc. are the reasons for the marginally high menarchial age of the Mankirdia women, various studies indicate that menarchial age is influenced by food habit, nutrition, occupation, education, environmental, genetical, socio-economic factors, etc (Tanner & keeffe, 1967; Bhasin , 1994; Biswas & Kapoor, 2003). The different bio-cultural variables which directly or indirectly the level of fertility is being highlighted.

Age at marriage

Table- 3 : Age at Marriages

Age group in years	Age at marriage Frequency	%
<13	7	4.5
13-15	97	62.2
16-18	48	30.8
19-21	2	1.3
>21	2	1.3
Total	156	100

(Mean age at marriage 15.04 years)

The relationship between age at marriage a fertility is well known (Nag, 1982; Pandey and Talwar, 1987). Table-3 shows that maximum percentage of women get married between 13-15yeras (62.2%) and 16-18 years (30.8%) which indicates that the practice of girls getting married soon after puberty is still existent in the Mankirdia population. The mean age at marriage is 15.04 years which is also much below the legal age at marriage of the Indian girls (18 years).

Age at first conception

Table- 4 : Age at first conception

Age group	Age at first conception	
in years	Frequency	%
<13	2	1.3
13-15	51	32.7
16-18	90	57.7
19-21	10	6.4
>21	3	1.9
Total	156	100

(Mean Age at first conception16.2 years)

Though age at conception and age at first child birth are biological phenomenon, its socio-cultural dimensions are governed by personal, social and culture setup. It is the age at which the female eventually enters into the actual fertility performance.

Table 4 shows that the mean age at first conception is 16.2 years. Thus, the gap between the mean age at first conception and mean age at marriage is about one year which highlights that due to early marriage biologically their reproductive system are not fit for conception, Kallan and Udry (1986) have opined that the effect of age at marriage most likely operated through biological and maturational factors. However, some cases of fertility regulation (traditional & modern) is also prevalent in this tribal society as reported by some respondents. This is in accordance with Dissanayaka (1997), who established the prevalence of using contraception at the beginning of child bearing.

Age at first childbirth

Table - 5: Age at first childbirth

Age group in years	Age at first childbirth	
	Frequency	%
<13	-	-
13-15	34	21.8
16-18	82	52.6
19-21	34	21.8
>21	6	3.8
Total	156	100

(Mean Age at first childbirth 17.2 years)

Table-7: Fertility Performance of the Ever-Married Women (EMW)

Number	Conception		Abortion		Stillbirth		Live-birth	
	No of EMW	%	No of EMW	%	No of EMW	%	No of EMW	%
0	17	10.9	147	94.2	146	93.6	2	12.8
1	15	9.6	4	2.56	5	3.2	19	12.2
2	27	17.3	3	1.9	3	1.9	25	16.0
3	25	16.0	2	1.3	2	1.3	35	22.4
4	23	14.7	-	-	-	-	14	9.0
5	24	15.4	-	-	-	-	15	9.6
6+	25	16.0	-	-	-	-	28	17.9
Total	156	100	156	100	156	100	156	100
Total no of	Conception-506		Abortion-16		Stillbirth-17		Livebirth-473	
Mean(per women)	3.24		0.10		0.11		3.03	

Number of Conception:

The total number of conceptions of the 156 Mankirdia women is 506 and the average number of conceptions per woman is 3.24. The frequency of women having two conceptions is the highest (Table-7).

Number of Live - births:

The total number of live-births of the 156 The mean age at first child birth of the Mankirida women is 17.2 years, at which the women truly enter into motherhood (Table-5).

Fertility Performance :

Human fertility is responsible for the biological replacement and maintenance of the human species. Table-6 presents the fertility performance of the ever-married women. The total number of conceptions, live-births, pregnancy wastage (abortions and stillbirths) is some of the major findings of the study. Mankirdia women is 473 while the average live-births per women is 3.03. The frequency of women with three live-births is found to be the highest.

Pregnancy Wastage:

Stillbirth and abortions are considered as pregnancy wastage in the present study. Out of the 156 women, 9 women have experienced Pregnancy wastage. Thus 5.8% of the women have pregnancy wastage. The total number of pregnancy wastage is 33, therefore the average pregnancy wastage per women is 0.21. Out of 506 conceptions, the total number of pregnancy wastage is 33 which indicates that 6.5% pregnancy wastage has

Table 8: Breast Feeding

Initiation of Breast-feeding	Frequency	Percentage	Duration of Breastfeeding	Frequency	Percentage
1st day	34	21.8	6 months	5	3.2
2nd day	69	44.2	6 mth-1years	47	30.1
3rd day	41	26.3	1-2 years	89	57.1
No response	12	7.7	>2 years	15	9.6
Total	156	100	Total	156	100

(Average duration of breast feeding:15.5 months)

In the present study, it is observed that the Mankirdia women considered breastfeeding as readily available and easy to feed children but due to the existence of certain taboos and basically due to ignorance maximum mothers initiate breastfeeding on the second day This finding is in concordance with the other primitive tribes of Odisha (Dash, 2010). Vimala and Ratnaprabha (1987) have observed among the tribal communities of Andhra Pradesh that in spite of the existing taboos and ignorance about the beneficial effect of breastfeeding 95 percent of the

women breastfed their babies . This is also in accordance with the present study. Table-8 highlights that maximum mothers breast their children for 2 years and more than two years primally because breastfeeding is reliable and economical. The advantage of breastfeeding for the prevention of pregnancy is not perceived well. Lack of breast feeding is believed to cause compromised child growth. actually, occurred among the women of this community.

Breast Feeding and Fertility :

Breast feeding lay the foundation of healthy psycho-social development, besides providing perfect nutrition for infant.

Generally, the birth intervals and breastfeeding are closely related and shorter breastfeeding durations result in higher fertility levels (Goswami, 2009). Breastfeeding is the major determinant of prolonged postpartum amenorrhea; the birth interval and the resumption of next menses is societies where it is universal. prolonged and of high intensity (Singh and Negi, 1985; Srinivasan et al, 1989; Babu, 1996). The present findings indicate that 30.1 percent had breast fed their children for a year or more while 3.2 percent discontinued within six months. The average duration of breastfeeding was found to be just more than 15 months (15.5 months). Thus, prolonged breast feeding and postpartum sexual abstinence are factors that account for fertility control. The effect of prolonged exclusive breastfeeding practice even without any supplementation is manifested in the present community.

Family Planning and Fertility :

Whenever fertility is considered, the role of family planning measures becomes an important part to be studied.

Table- 9 : Family planning (Permanent)

Family planning	Sterilization method		Traditional method	
Method	Frequency	%	Frequency	%
Availed	11	7.1	69	44.2
Not aviled	145	92.9	87	55.8
Total	156	100	156	100

It has been observed (Table 9) that the prevalence of sterilization method of family planning is very poor. The data revealed that 92.2% did not adopt the sterilization method. Among the users of the family planning method maximum percentage of the women were noted to have used traditional method and only 7.1% preferred sterilization. The use of other modern method of contraception is not prevalent among this remotely located primitive tribal community. They widely practice traditional contraception methods to prevent pregnancy (Table-9).

Thus, the main measures of fertility control include the traditional contraception method and the effect of prolonged breast feeding or the natural method of fertility regulation.

Conclusion :

The present study focused mainly to examine the bio-culture variables those determine the fertility . At the societal level, the factors such as possession of transport, electronic item, monthly & average family income which reflects the poor socio-economic and educational background of the present tribe are discussed.

Menarche, a biological determinant of fertility, implies the beginning of the fecund life of a woman, but the actual practice starts from the time of marriage . The mean age at marriage of the women of the present study is only 15years which is much below the Government norms for minimum age at marriage of the Indian girls i.e., 18years . The early age at marriage, which is one planning measures becomes an important part to be analyzed. Of the cause for longer fertile life is due to lack of education.

The observation of fertile by different bio-cultural variables gives and impression that though the mean age at marriage is low, the gap between the mean age at first conception & the mean age at first child birth is 1-2 years which establishes the fact that biologically their reproductive system is not fir for conception and some cases of fertility regulation is also being observed among the women. The average fertility of the women in the present study is 3.24. Pregnancy wastage is an important biological factor to affect the fertility of a woman during her

natural reproductive span. In the present study 5.8 % of the women have pregnancy wastage.

In a bid to reduce fertility studies relating to its social inter-related factors have been of major importance to natural planner. In the present study, the social factors such as education, occupation, income etc. were studied to analyze the effects on fertility and the bio-cultural factors were also identified which influence the fertility of the Mankirdia Tribe.

Duration of breastfeeding has been found to be closely associated with fertility. The study showed that prolonged breastfeeding playing as a natural factor of fertility regulation, had a significant effect in reducing fertility. Despite of the low age at marriage and poor prevalence of the permanent or modern method of fertility regulation, a restrained average fertility is manifested in the present study, prolonged breastfeeding and prevalence of widespread traditional contraception methods are identified as responsible factors affecting the fertility of the present population. However, the fertility needs to be monitored regularly and appropriate measures should be taken to raise the status of women.

24. NUTRITIONAL STATUS OF THE BHUMIJA OF BALESWAR, ORISSA

Abstract : *The present study is an attempt to find out the prevalence of under nutrition among the Bhumija of Baleswar. The study was undertaken to determine the anthropometric profile and the prevalence of Chronic Energy Deficiency (CED), based on body mass index (BMI).Anthropometric measurements including height and weight were measured using standard protocol. BMI was calculated and utilized as a measure of nutritional status. The extent of under nutrition (BMI<18.5) was found to be very high. The frequency of under nutrition was higher in females (54.8%) compared to the males (48.5%). Based on the World Health Organization (199%) classification the prevalence of CED was very high (=40%) and thus the situation seems to be critical. These findings may have severe public health implications. Therefore, immediate public health programs should be initiated to reduce the prevalence of CED.*

Introduction :

Nutrition has been a major health issue in India for centuries. It is a key to developing and maintaining a state of health that is optimal. Good nutrition requires a satisfactory diet, which is capable of supporting the individual consuming it. Nutritional status can be evaluated using internationally accepted BMI guidelines. World Health Organization (1995) has recommended that anthropometry could be used to assess the nutritional and health status of adults. One such measure now in widespread use is Quetelet's index, which is body weight (in Kg) divided by stature (in M2) (Keys et.al, 1972).

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Better known as body mass index (BMI) , this measure was an attempt by the 19th century mathematician Lambert Adolphe Jacques Quetelet to describe the relation between body weight and stature in human (Quetelet, 1841). Many studies have shown that BMI is a reasonable measure of adiposity (Khosla and Lowe 1967, Keys et.al 1972, Smalley et al 1990, Deurenberg et al 1991, Strain and Zumoff 1991, Garrow and Webster 1995, Bose 1996). Low BMI and high levels of under nutrition (based on BMI) are a major public health problem especially among rural underprivileged adults of developing countries (WHO , 1995).

Although adult nutrition status can be evaluated in many ways, the BMI in mostly used because its use is simple, inexpensive, safe and suitable for large scale Nieman, 2003). Thus BMI is the most established anthropometric indicator used for assessment of adult nutrition status (Lee and Nieman, 2003).

BMI is generally considered a good indicator of not only the nutritional status but also the socioeconomic condition of a population, especially adult populations of developing countries (Ferro-Luzzi et.al., 1992; Shetty and James, 1994; Nube et.al, 1998; Khongsdier, 2002; Mosha,2003). A BMI<18.5 Kg/m2 is widely used as a practical measure of chronic energy or hunger deficiency (CED), i.e., a "steady" underweight is which an individual is in energy balance irrespective of a loss in body weight or body energy stores (Khongsdier,2005). Such a "steady" underweight is likely to be associated with morbidity or other physiological and functional impairments (James et.al 1988; Shetty and James, 1994; WHO 1995).

CED is caused by inadequate intake of energy accompanied by high level of physical activities and infections (Shetty and James, 1994; Shetty et.al. 1994). It is associated with reduced work capacity (Pryer, 1993; Durnin 1994), performance suppressed immune function (Garcia and Kennedy, 1994; Shetty and James, 1994; Strickland and Ulijaszek, 1994) and behavioral changes (Kusin et.a l.1994).

Studies carried out by National Nutrition Monitoring Bureau (NNMB, 2000) in different states revealed that even though there has been marked decrease in prevalence of severe under nutrition over a period of three decades, the prevalence nutrition in the tribal communities was relatively higher compared to their urban as well as rural counterparts.

Table - 1 present the mean BMI and the levels of CED (among tribal females) of the various states of India. From this table it can be inferred that, in general, the mean BMI of the tribal females of various states of India are in the range of 181.2-23.0kg/m2. Moreover, the rates of CED varied between 4.8% (Sikkim) and 64.2% (West Bengal). These rates are in category good (<5%) and very high (>40%). These results clearly indicated that, tribal females of Orissa are under critical nutritional condition only next to West Bengal which is super critical.

In India, the most underprivileged group is the tribal communities both in terms of socioeconomic condition as well as nutritional status (Basu, 1994;Sharma, 2004). Several studies show this reflection as high chronic energy under nutrition among tribals across India (Ferro-Luzzi et.al., 1992; Khongsdier, 1997; Adak et.al, 2006a, 2006b and specifically in the state of Orissa, which has largest number (62) of tribal communities (Ministry of tribal Welfare, 2001). Orissa comprises of 22.13 percent tribal population of total population of Orissa states (Census of India, 2001) and half of them are living below poverty line (Mohapatra et.al., 2000).

Table - 1: Mean BMI and Prevalence of CED (based on BMI) among tribal females aged 15-19 years in various status of India.

States	Sample size(n)	Mean BMI (Kg/m2)	CED (%)	Nutritional Condition
India	6590	19.1	46.3	Critical
Assam	609	20.4	19.1	Serious
Bihar	514	19.2	41.0	Critical
Chattisgarh	302	18.5	55.2	Critical

States	Sample size(n)	Mean BMI (Kg/m2)	CED (%)	Nutritional Condition
Gujarat	671	19.0	55.0	Critical
J & K	64	19.4	43.4	Critical
Jharkhand	414	19.1	40.9	Critical
Karnataka	226	18.9	49.0	Critical
Madya Prades	1353	18.8	49.2	Critical
Maharastra	489	18.9	54.8	Critical
Orissa	796	18.5	55.5	Critical
Rajasthan	676	19.2	39.6	Critical
Uttar Pradesh	118	19.7	32.6	Critical
West Bengal	287	18.2	64.2	Super Critical

Source : National Family Health Survey -2 (2001)

Several recent studies from India (Yadav et.al 1999; Gagoi and Sengupta 2002; Sahani 2003;Bose and Chakraborty 2005; Bose et.al 2006a) have utilized BMI to study nutritional status of the tribal population. Therefore, the use of BMI and WHO (1995) BMI based cutoff points for the evaluation of CED are valid for use among tribal populations of India. Some recent investigations from West Bengal (Ghosh and Bharati 2006; Mittal and Srivastav 2006: Datta Banik et al. 2007; Bisoi et al. 2007) and Orissa (Chakraborty et al. 2008) have studies the anthropometric characteristics and levels of under nutrition among various tribal populations. These studies have dealt with the Munda (Ghosh and Bharati 2006), Oraon (Mittal and Shrivastava 2006) from West Bengal and the Bhuiya, the Gond, the Paraja, the Santal and the Savara (Charaborty et al. 2008) from Orissa. However, studies on the Bhumija are lacking and in view of this , the present study provides unique data on the Bhumija.

Table - 2 : Mean BMI & prevalence of CED among some tribes.

Tribe	N	Mean BMI (Kg/m2)		CED (%)	Nutritional Condition	Source
Dhimal	159	19.5	27.0	Serious		Datta Banik et.al (2007)
Kora Mudi	87	8.6	51.7	Critical		Bisoi et.al (2007)
Munda	153	18.7	49.0	Critical		Ghosh and Bharati (2006)
Oraon	200	18.8	47.0	Critical		Mittal and Shrivastava (2006)
Bhuiya	50	19.4	30.0	Serious		Chakraborty et.al. (2008)
Gond	99	18.1	64.6	Super critical		Chakraborty et.al. (2008)
Paraja	50	17.3	80.0	Super critical		Chakraborty et.al. (2008)
Santal	106	18.3	63.2	Super Critical		Chakraborty et.al. (2008)
Savara	200	18.5	53.0	Critical		Chakraborty et.al. (2008)
Bhumija	66	18.9	48.5	Critical		Present Study (2008)

Table - 2 compares the mean BMI and the levels of CED (based on BMI) among adult males of the various tribal population of West Bengal and Orissa. From this table it can be inferred that, in general, the mean BMI of the adult tribal males of West Bengal and Orissa are in the range of 17.3-19.5 kg/m2. Moreover, the rates f CED varied between 30% and 80% . These rates are in the category high (20- 39%) to very high (=40%). These results clearly indicate that the males of these tribes are under serious, critical or super critical nutritional condition.

The manifestation of such poor living condition leads to high prevalence of chronic energy deficiencies among other tribal communities of Orissa also such as among the Dongria Khond (Bulliyy a et.al. 2004), Bathudis (Bose and Chakrabarty, 2005), Santal(Bose et.al., 2006e) and Savar (Bose et.al.2006a). But the degree of prevalence differs from one community to other.

Data are scanty on the anthropometric and nutritional status of various population of India (Arlappa et.al, 2005, Bose and Chakraborty, 2005; Bose et.al., 2006a;b;c;d; Ghosh and Bala, 2006). It has been recently suggested (Bose and Chakraborty, 2005) that there is urgent need to evaluate the nutritional status of the various tribes of India. Therefore, the present study evaluates the nutritional status of the Bhumija tribe of Nilagiri, Baleswar, Orissa.

The Bhumija :

The Bhumija are one of the Scheduled Tribes of Orissa and are concentrated thickly in the districts of Baleswar, Mayurbhanj, Sundergarh and Keonjhar. The term 'Bhumij' means owner of the soil. The Bhumija are one of the Hinduized tribes and therefore they take part in all the religious festivals of the Hindus. They are divided into several exogenous clans and generally they speak Bhumija, an Austro-Asiatic language.

They inhabit the mountain slope of the Nilagiri in large numbers and construct houses out of bamboo and Sal saplings tied with grass ropes and thatched with straw. Most of the families are of nuclear type, consisting of husband, wife and unmarried children. Bhumija family is patriarchal as well as patrilineal. Normally marriage is performed within the community. Rice is their staple food and is eaten throughout the year. They eat dal, vegetables, roots and tubers etc as they can afford to. They abstain from taking beef and prok instead take meat, fish, crab and chicken etc. Rice beer is their favorite drink (Daspatnaik, 2004). In all cases of violation of social rules, the village headman or 'Sardar' convenes a meeting of the elders and punish the delinquents. Basically,

the Bhumija are agriculturists and most of their festivals are connected directly or indirectly with agriculture. The literacy rate of this tribe is considerably low. The vast majority of the Bhumija are very low-wage earning manual laborers. Some of them also work as laborers in agricultural and other sectors. However, the main occupation at present is supplemented by wage earning and forest collection. The overall lifestyle indicators reflect their low socio- economic status.

Methods:

The study was conducted during January-March, 2007.The data were collected from three villages namely Jambani, Chaturkhunta and Chandipur. The villages are located 15km from Baleswar town (District Headquarter), Orissa. The villages were selected considering their accessibility and Bhumija dominance. Though other tribes and castes are living together in the selected villages, the study was conducted only on the 'Bhumija tribe'. To access the nutritional status of the tribe, especially the women, because nutritional status is intricately linked with fertility, the Bhumija houses with married women of reproductive age (15-49 yrs) were contacted and data was also collected from their corresponding husband or adult males (20-54yrs) depending upon their availability. Thus, a total of 66 males and 73 females were included in the study.

Before collecting data, rapport was established and prior permission and ethical approval was obtained from local community leaders as well as relevant authorities. A pre-tested questionnaire was used for data collection regarding health, hygiene, socio-economic

status etc. Data on nutritional anthropometry were collected from 139 adults (66males of 20-54 Age-group and 73 females of 15-49 Age- group). The anthropometric measurements were taken and recorded since most of the subjects were illiterate. The vast majority of the subjects were illiterate and very low age earning manual laborers. Thus they belonged to the low socio-economic class.

Table - 3: Age-Sex composition of the villages by broad age group

Age Group	Vill-I-Jambani		Vill-II-Chaturkhunta		Vill-III - Chandipur	
	Male	Female	Male	Female	Male	Female
0-9	21	19	52	52	28	31
10-19	16	12	37	25	29	20
20-29	15	11	33	32	18	18
30-39	12	10	30	19	20	10
40-49	5	8	13	14	8	12
50-59	6	6	11	11	10	8
60+	3	7	11	13	7	10
Total	78	73	187	166	85	82

Table 4: Distribution of the population of the respondents

Sl No	Name of Village	Males (20-54)	Respondents No	%	Females (15-49)	Respondents No	%
1	Jambani	36	21	58.3	39	23	58.9
2	Chaturkhunta	82	25	37.9	87	28	38.4
3	Chandipur	40	20	50	45	22	48.8
	Total	158	66	41.8	171	73	42.7

Table 3 presents the age-sex composition of the three selected village-namely Jambani, Chaturkhunta and Chandipur. The total Bhumija population of these three villages are 151,353 and 167 respectively. The sex ratio of the village is 936,888 and 965 females per thousand males which indicate a high sex ratio. The response rates were 41.8 and 42.7 percentage respectively (Table-4) . Height and weight were measured following the standard procedures, using a stature meter for height and weighing machine for weight. Height and weight were recorded to the nearest 0.1 cm and 0.5 kg, respectively. BMI was computed using the following standard equation:

BMI = Weight(Kg) / Height(m2)

Nutritional status was evaluated using internationally accepted BMI guidelines (WHO 1995), the following cut-off points were used:

CED grade III: BMI < 16.0 (Severe)

CED grade II: BMI = 16.0-16.9 (Moderate)

CED grade I: BMI = 17-18.4(Mild)

Normal: BMI= 18.5-24.9 (Normal)

Overweight: BMI = 25.0 (Overweight)

We followed the World Health Organization classification (1995) of the public health problem of low BMI, based on adult populations worldwide. This classification categorizes prevalence according to percentage of a population with BMI < 18.5.

Low (5-9%): Warning sign.

Medium (10-19%): Poor situation

High (20-39%): Serious Situation

Very high (=40%): Critical situation.

Results and Discussion:

Anthropometry is considered to be an important tool for accessing nutritional status of individuals or of the community.

The height and the weight are recorded and the nutritional grades are calculated according to weight for height using ICMR standards. Table 5(A) and 5(B) show the nutritional grades by weight for height for both adult male and female. The distribution of weight for height classification shows that a higher percentage of male (39.4%) and female (41.1%) are found between 10-20 % below the ICMR standard while nearly 33% of male and 33% female are 0-10% below the ICMR standard. Further, nearly 6% male and 10% female are 0- 10% above the ICMR standard while 12% male and 1% female are 10% above the ICMR standard. However, considering "+1" and "-1" grades as normal range, 39% male and 43% female are found to be in the normal range. Nearly 49% male and 1% female are overweight. Thus, the Bhumija females are found to be more under-nourished than their male counterparts.

Table - 5A: Distribution by weight for height: Male

Ht incm	(10-30%) Below std	10-20% Below std	0-10% Below std	Wt as per ICMR in kg	0-10% above std	10-20% above std	20-30% above std	Total
	-3	-2	-1	0	+1	+2	+3	
Below 150	-	2	-	47.5	-	-	-	4
150-154.9	-	1	3	49	1	-	-	5
155-159.9	-	4	8	51.5	1	1	-	14
160-164.9	2	4	6	54.0	1	3	-	16
165-169.9	2	10	-	59.0	-	2	1	15
170-179.9	2	5	3	62.0	1	-	1	12
180+	-	-	-	69.5	-	-	-	-
Total	6	26	22	-	4	6	2	66
	9.1	39.4	33.33		6.1	9.1	3.1	

Mean and standard deviation of height, weight and computed BMI are presented in Table 6. The mean and standard deviation of the height of the Bhumija male are 163.44+ 3.93 cm while the mean and standard deviation of the weight of males are 50.68 + 7.85 and that of the female are 41.86+5.01 .Thus the mean BMI of the Bhumija male is 18.95 and the female is 18.49 . This shows that the Bhumija are slightly under-nourished than the males.

Table - 5B: Distribution by weight for height: Female

Ht incm (10-30%) 10-20% 0-10% Wt as per 0-10% 10-20% 20-30% Total

Below std Below std Below std ICMR

	-3	-2	-1	0	+1	+2	+3	
Ht incm	(10-30%) Below std	10-20% Below std	0-10% Below std	Wt as per ICMR in kg	0-10% above std	10-20% above std	20-30% above std	Total
	-3	-2	-1	0	+1	+2	+3	
Below 140	-	-	-	40.5	-	-	-	-
140-144.9	1	2	2	43	-	-	-	5
145-149.9	6	15	8	46.5	3	-	-	32
150-154.9	3	10	9	48.5	4	1	-	27
155-159.9	1	3	5	50.5	-	-	-	9
160+	-	-	-	52.5	-	-	-	-
Total	11	30	24	-	7	1	-	73
	15.1	41.1	32.9		9.6	1.4		

Table - 6: Mean Height, Weight and Body Mass Index of Bhumija

Parameters	Male (n-66) Mean±SD	Female (n-73) Mean±SD
Height (cm)	163.44±7.24	150.26±3.93
Weight (kg)	50.68± 7.85	41.86±5.01
BMI(kg/m2)	18.95±2.41	18.49±1.87

Table - 7: Distribution of Bhumija popularion according to BMI

BMI	Category	Male		Female	
		No=66	%	No=73	%
<16	CED Grade III (Severe)	3	(4.5)	5	(6.8)
16-16.9	CED Grade II (Moderate)	9	(13.6)	11	(15.1)
17-18.4	CED Grade 1 (Mild)	20	(30.3)	24	(32.9)
	Total Under Nutrition	32	(48.5)	40	(54.8)
18.5-24.9	Normal BMI	32	(48.5)	32	(43.8)
=25+	Overweight	2	(3.0)	1	(1.4)

To further access the nutritional status of the Bhumija the male and female were distributed into various categories of Chronic Energy Deficiency (CED) based on their BMI (Table-7). Both the male (48.5%) as well as the female (55%) have high rates of CED (BMI =18.5 kg/m2) while 48.5% male and 43.8% female are in the category of normal BMI (18.5-24.9kg/m2). It is observed from table -6that higher male (30%) than female (33%) are in the category of "mild CED" and higher female (22%) than male (18%) are in the category of "moderate and severe CED". Thus, according to the WHO classification of the public health problem of low BMI , the prevalence of CED was very high (=40%) in both the male and female indicating a critical situation.

Conclusion:

The present study reveals a high incidence of under-nutrition of the subjects. The weight-for-height measurements show that the majority of the adult Bhumija are under weight, especially the females. A remarkable finding of this study is that both the Bhumija male and female are reasonably under nourished as indicated by their low BMI (=18.5 kg/m2), thus indicating a critical situation. Beside other factors, illiteracy & poverty are the main contributing factors for their poor nutritional status which is a current object of concern. Thus, it is

incumbent that the nutritional status of the tribe should be improved by enhancing the socio-economic status through improved education and employment opportunities. It is obvious that better educational attainment will lead to more scope for employment which in turn will fortify their nutritional status.

During the course of study, it was observed that the implementation of the existing food supplementation programme such as Integrated Child Development Services (ICDS), Mid-Day Meal (MDM), and provision of food supplements for the pregnant and lactating women etc. was rather weak. Further no such programme is existing for the adult under-nourished population. Moreover, the delivery of service was partial and inadequate.

In this context, it is of primary importance, from the public health perspective that immediate and appropriate nutrition programmes need to be implemented among this ethnic group. These programmes should not only include provision of food supplements but also nutrition and health education. Some of these interventions though existing in the present population are not being implemented adequately. Hence, continuous efforts are needed to strengthen the programme so as to improve its field level implementation. The Orissa Government should play an active role in reducing the rate of under nutrition among tribal people. Although priority must be given to tribal groups having highest rates of under nutrition, all group must be incorporated in these food supplementation programmes, Besides Govt. several NGOs functioning in Baleswar district should take proactive role in improving the nutritional status of the tribals of this area.

Finally, since nutritional status directly or indirectly influences the fertility of the women, advance research should be undertaken to understand the nature of impact of nutritional status on the fertility of the women. The present report did not deal with the role of different nutritional variables in altering fertility. This is a clear limitation of the present study. Therefore, it is imperative that further studies should include these parameters to evaluate the impact of nutritional status on the fertility of the women.

25. TRIBAL ORIGIN AND GROWTH IN ODISHA

Abstract: *There are enough evidences to show human habitation in Odisha during Indian Paleolithic period, however, the term 'tribe' was first used by the British rulers in mid-19th Century for the 'forest dwellers' to distinguish them from the 'plan dwellers'. After independence some Tribal communities in different phases were listed (by 5th and 6th Schedule) and were collected as 'Scheduled Tribes'. After 1961 there is no addition to the list of tribes in Odisha. Although Tribal population has grown from 4.2 million in 1961 to over 9 million in 2011 census, the proportion of tribal population (to the total population) has been gradually decreased , i.e. from 24.1% (1961) to 21.9% (2011). It is amazing to see that 28 (twenty-eight) tribes have shown a decline of population during the decade (1991 to 2001), out of which four are major tribes and three are primitive tribes. Demographic factors, ethnic confusion and wrong enumeration are the main cause for such a large-scale decline. Government of Odisha through its concerned department are taking up due steps to solve such problems.*

Introduction:

Tribe (tribes) was initially understood as a section or a group of people; however, for an anthropologist the term 'tribe' means a type of community comprising a set of socio-economic features. As described by Anthropologists, the tribe is an endogamous group having a distinct name , a common dialect, a common way of life and sharing a common territory. In Odisha a tribe is known in different names such as Adivasi, Adimjati, Vanyajati, janajati, etc. those tribes who are listed under the 5th scheduled Tribes of the anusuchit janajati , (Elwin 1943, Bose 1953 & Royburmen 2005)

Tribal History & Culture, Page 10-16, Calcutta, 2011

Before describing the growth and decline of the scheduled tribes of Odisha it is necessary to discuss the tribal origin of Odisha. Leading Anthropologists have tried to establish the tribal origin of Odisha for 2000 years back (roughly 1st century B.C) interestingly, Prof. L.K. Mahapatra describes that some tribes like Santhal, Ho and Kharia are not the original inhabitant (Adivasis) of Odisha. They have migrated during 19th century from Chhotnagpur area (now Jharkhand) to Odisha. He is also of the opinion that a majority of tribes existed for millennia (many thousand years) and some have migrated during last 200 years or more, (Mahapatra 1982, Sinha 1987 & Dash 1997).

Indeed, the prehistoric evidences, found till today, from different parts of Odisha reveal that human beings existed in Odisha during Indian Paleolithic period i.e. roughly 200,000 to 20,000 years ago. There are prehistoric sites of Mesolithic period (from 20,000 years to 10,000 years) and Neolithic period (from 8.000 years to 4,000 years). After that the iron Age evolved and the historic period started in Odisha, (Bhatacharya 1972 & Mahapatra 2000).

It is also revealed from different studies that Homo sapiens migration occurred during upper Paleolithic period (45,000 to 25,000 years back) in different parts of South Asia. Till today, there are two accepted theories that the African origin people (so called Dravidians) migrated to the peninsular India by sea route and moved north ward around 20 to 30 thousand years back. The other group (the so-called Aryans) from the South - West of Russia entered the north - West India around 8 to 10 thousand years back. There was a pan- mixing 9hybridization) of both the populations in India during 8000 B.C. and there was also a large-scale cultural synthesis. That was perhaps the early Indian culture and later the Vedic period followed, (Scupin 2005) .

One can say that the history of Odisha Tribes can be reconstructed from 2000 B.C. as that of Mohenjo-Daro and Harappa. Further, the growth of population since lithic period can be studied by applying the recent techniques for studying the Paleo demography.

Scholars of prehistoric and demographic studies need to take up such new challenges to reconstruct the origin and demographic linkage of the Odishan tribes the aboriginal setters or the indigenous people.

However, the present paper highlights the growth of tribal population only after Odisha became an independent state (province) in 1936. The first Census of Odisha was conducted in 1941. Some tribes (44 in number) became scheduled Tribes in 1951 after the inclusion of their names in the Odisha list of tribes as per Schedule 5th of Indian constitution. During 1951- 61 some more tribes (18 in number) were also included in the Odisha list of tribes and thus became 62 in number in 1961 Census. After 1961 there was no further inclusion in the of tribes.

Considering the above, the tribal population of 1961 census is considered as the base population for this paper.

Table-1: Population and Growth of Scheduled tribes 1961 - 2001

Census Year	Population of Odisha in Millions	Tribal Popn in Millions	Proportion of ST %	Growth of ST%
1961	17.5	4.2	24.1	
1971	21.9	5.1	23.1	20.1
1981	26.4	5.9	22.4	16.8
1991	31.7	7.0	22.3	18.8
2001	36.8	8.1	22.1	15.9
2011	41.9	9.2	21.9	13.6

(Source: Calculated from the census data of Odisha, 1961-2001)

The Table-1 reveals an interesting picture of the scheduled Tribes in Odisha. Although the population of ST has increased in different Censuses, their proportion to the state population has shown a gradual decrease. The decadal Growth Rates show a fluctuating but downward trend as reflected in figures 01 to 03.

Low fertility, high mortality and high interstate migration are the three main cause for the decline of tribal proportion in Odisha. Some scholars mention that the spread of Christianity among tribals is the

main factor of the declining trend. But , my field studies on the tribal of Odisha over thirty years reveal that although a sizable proportion have accepted Christianity, they have still retained their tribal identity. Therefore, spread of Christianity is a minor factor for the decline of the tribal population. Rather, the high rate of infant, child and maternal mortality along with poverty are the consequential factors for the declining trend. This is one of the main concerns of the Government. Recently some specific health and economic developmental measures are being implemented in the Tribal dominated areas (Scheduled areas) for combating the poor economic and health scenario of the Tribes of Odisha. We should soon see the results on expected lines.

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26. MATERNAL CARE AND CHILDREARING PRACTICE - A MICRO LEVEL STUDY AMONG THE BHUMIJA TRIBE OF NORTHERN ORISSA, INDIA

Abstract : *Multidimensional factors sway the goal of safe motherhood and it is still a dream for such for much of India's rural and tribal population. The present is an endeavor to comprehend the maternal care and childrearing practice of the Bhumija tribal women of Northern Orissa. The antenatal care coverage is only 60.3%, 55.4% has consumed IFA supplement and 51.2% women has taken TT vaccine. Concomitantly, the women of the child bearing age are confronted with various complications of high risk. Despite of Government various initiatives such as Janani Suraksha Yojana (JSY) and ASHA, it is interesting to note that still majority of the women (62.8%) are contingent upon the elderly women of the village during childbirth. Breastfeeding shows a positive association (correlation) with the length of postpartum amenorrhea. The study also envisages the faulty feeding and weaning practices of the tribal children. Therefore, these is still a need to reinforce the maternal and child health care practices in this population and give sufficient importance to it as an intervention to impoverish maternal & child mortality and morbidity.*

Introduction :

Health needs of the women as well as the important role that women play in promoting health and development has been the recent focus in the primary health care in India. As a result of poor health and lack of appropriate medical services, women bear an enormous risk every time they become pregnant. In the developing countries particularly in the tribal and rural areas, access to maternity care is very poor.

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Jointly With Dr. Monali Goswami & Dr. Bijayalaxmi Dash

Maternal mortality is the first or second cause of death of women of 25 to 34 years of age in over half of the developing countries for which data were available. Maternal mortality is on an average 18 times higher in addition to the number developing countries compared to the developed ones (WHO, 1996) of deaths each year, over 50 million women suffer from maternal morbidity due to acute complications from pregnancy (UNICEF, 1996).

The goal of safe motherhood aims at maintaining the good health of the mother during pregnancy, which will enable her to produce healthy normal infant and to remain herself healthy (Bournce, 1972). Against, that backdrop, maternal health receives greater attention after the safe motherhood initiative was launched at the International Conference held in Nairobi in 1987 (Malher, 1987). Though the safe motherhood initiative has been given priority in recent years, maternal morbidity and mortality still remains a major public health issue in most developing countries (Weil and Fernandez, 1999). It is estimated that 1600 women die worldwide every day as a result of problems during pregnancy or childbirth and a greater proportion of these deaths occur in developing countries (Shah et.al 1999, Jowett 2000). A large proportion of these deaths are preventable by appropriate measures thorugh through the periods of prenatal, delivery and post natal care (Royston and Armstrong 1989). Complications of pregnancy and childbirth are still the leading causes of death and disability among women of reproductive age in developing countries (Maine and Rosenfield 1999).

The health and survival of newborn baby is dependent on the health status of the mother, care rendered to mother during pre and postnatal stages and the feeding and weaning practices among infants which have always been an area of special interest where child rearing practices are concerned. Many pioneering works on breast feeding

have been undertaken by various medical and social scientists (Narayana, 1983; Das and Ghosh, 1985; Swain, 1985; Pandey et al, 1997; Nanda & Samantary, 1999; Maiti et al, 2005). Many studies have been undertaken on breast feeding in various tribal population of the world.

The vaccination of children against six serious but preventable diseases (tuberculosis, diphtheria, pertusis, tetanus, poliomyelitis and measles) has been a cornerstone of the child healthcare system in India. In a National Family Health Survery2 (1998-99), it is found that only 42% of children in India and 44% in Orissa have received all the recommended vaccinations.

Understanding of the knowledge and practice of the tribal women regarding maternity care and child rearing practices, relevant prospective studies initiation and health programme implementation is indispensable. Thus, the present study investigates the maternal care and child rearing practice amongst the Bhumija tribal women of Balasore, Northern Orissa.

Methods :

The data for the present study were collected from five villages of the Nuapadhi Gram Panchayat, Remuna block of Balasore district of Orissa. The tribal dominated villages selected for the present study are at a distance of 15-18 km from Balasore bus stand. The study was conducted during the year 2009-2010 after seeking prior permission along with ethical approval from the leaders of the local community as well as from the concerned authorities.

The ever married women in the age group 15-19 years who have at least one child within (0-60) months were included in the present study. All the childless women were excluded from the study. A total of 121 mothers were identified by door-to-door survey. These women were interviewed using a pre-structured interview schedule on various aspects of reproductive health, details of antenatal care, delivery care, postnatal care, the feeding and weaning practices including initiation of breastfeeding, duration of breastfeeding, introduction of pre lacteal feed, age of supplementation and the immunization status of the children. Beside quantitative data through interview schedules, qualitative data were also collected through Focus Group Discussion (FGDs) conducted at the grass root to ascertain the health status of the mother as well as the baby and to know the various myths and misconceptions existing in the community.

The data after collection were processed and analyzed in accordance with the outline laid down for the purpose. To understand the relationship between two variables the correlation co-efficient was calculated using the formulae for Pearson's Correlation Coefficient.

Results :

Maternal health care systems aim at maintaining the good health of the mother form pregnancy to post delivery period which represents a period of elevated risk in a woman's life and the care rendered is critical for both the woman and her child's health and survival.

Maternal Care:

Antenatal care is a periodic health check-up once pregnancy is confirmed. Antenatal care is considered as a component of maternal service which is a part of "Safe motherhood" interventions to reduce mortality and morbidity (Jowett, 2000). Antenatal care coverage is the percentage of women who have attended antenatal checkup at least once during pregnancy. The antenatal checkup encompasses physical examination, measurement of weight and blood pressure, provision of iron and folic acid tablets (IFA), tetanus toxoid (TT) injections and advice on correct diet to the pregnant women to prevent various complication.

Table -1: Distribution of women received Antenatal Care

Present Age Group	Number of ever married women		Received antenatal checkup		Did Not Receive antenatal		Consumed Iron Folic Acid (IFA) Checkup		Taken TT vaccine Supplement	
	No	%	No	%			No	%	No	%
15-19	6	5	83.3	1	16.7		5	83.3	4	66.67
20-24	22	16	72.7	6	27.3		16	72.7	14	63.6
25-29	25	19	76.0	6	24.0		18	72.0	18	72.0
30-34	18	10	55.6	8	44.4		10	55.6	9	50.0
35-39	19	10	52.6	9	47.4		9	47.4	8	42.1
40-44	14	7	50.0	7	50.0		6	42.8	6	42.8
45-49	17	6	35.3	11	64.7		3	17.6	3	17.6
Total	121	73	60.3	48	39.7		67	55.4	62	51.2

Table -1 shows that 60.3% of the Bhumija women have received antenatal checkup, 44.6% women have consumed Iron Folic Acid supplement and 51.2% women have taken tetanus toxoid vaccine. Table-1 also reveals, TT vaccine and consumed IFA as compared to the women of the older age group.

Complications during pregnancy may affect both women's health and the outcome of the pregnancy adversely. Table-II shows that about 48% of the women experienced at least one pregnancy related problems. The major problems reported were "swelling of hand and feet" (20%), "weakness/paleness" (16%). The second important pregnancy related problems were "Headache, backache, Joint pain" (14%) and "abdominal pain" (13%). About 3.3 percent of the women reported "bleeding" and 0.8 percent reported visual disturbances.

A pregnancy that has progressed without any apparent hitch can give way to complications during delivery i.e., obstetric complications. Table - II highlight that 31% of women have experienced at least one problem during delivery. Majority of the women suffered from "obstructed labor" (14%) and prolonged (12%).The less common delivery complications are "premature labor" (9%) and "excessive bleeding" (4%). Prolonged labor and obstructed labor are more common among younger women and premature labor and excessive bleeding are found more among the women of higher age groups.

The health of a mother and her new born child depends not only on the health care she receives during her pregnancy and childbirth but also on the case she and the infant receive during the first six weeks after the delivery.

Table- 2: Percentages of women with various complications

Variables	Age group in years							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
No.of mothers	6	22	25	18	19	14	17	121
Pregnancy Complications (In%)								
No complications	50.0	68.2	56.0	44.4	47.4	42.9	47.1	52.1
Any complications	50.0	31.8	44.0	55.6	52.6	57.1	52.9	47.9
Type of pregnancy complications(In%)								

Variables	Age group in years							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
Headache/backache	-	13.6	8.0	16.7	15.8	14.3	23.5	14.0
Abdominal pain	33.3	9.1	12.0	5.6	21.1	21.4	5.9	13.2
Swelling of hand/feet	16.7	13.6	16.0	22.2	26.3	21.4	23.5	19.8
Weakness/ Paleness	16.7	4.5	16.0	11.1	10.5	35.7	23.5	15.7
Bleeding	16.7	-	8.0	5.6	-	-	-	3.3
Visual Disturbance	-	-	-	-	-	7.1	-	0.8
Obstetric complications (In%)								
No complications	66.7	77.3	72.0	72.2	68.4	57.1	58.8	68.6
Any complications	33.3	22.7	28.0	27.7	31.6	42.9	41.2	31.4
Type of Obstetric complications (In%)								
Premature labor	-	4.5	8.0	11.1	10.5	14.3	11.8	9.1
Excessive bleeding	-	4.5	4.0	-	5.3	7.1	5.9	4.1
Prolonged labor	33.3	9.1	12.0	11.1	10.5	7.1	-	11.6
Obstructed labor	16.7	13.6	20.0	11.1	10.5	14.3	17.6	14.0
Post-delivery complications (In%)								
No complications	66.7	72.7	76.0	72.2	63.2	64.3	64.7	69.4
Any complications	33.3	27.2	24.0	27.8	36.8	35.7	35.3	30.6
Type of post-delivery complications (In%)								
High fever	16.7	13.6	8.0	11.1	10.5	14.3	11.8	11.6
Lower abdominal pain	33.3	13.6	12.0	5.6	15.8	7.1	17.6	13.2
Excessive bleeding	-	4.5	8.0	11.1	5.3	7.1	5.9	6.6
Convulsion	-	-	-	5.6	-	-	5.9	1.7
Severe headache	16.7	9.1	8.0	11.1	15.8	21.4	5.9	11.6

The incidence of the post-partum complications is judged by any of the following problems during the first six weeks of delivery; "high fever", "lower abdominal pain", "excessive bleeding", "convulsions" and "severe headache". Table-II indicates that 31 percent women faced any of the problems during the first six weeks after their delivery. The more common problems reported were lower abdominal pain (13%), high fever (12%) and severe headache (12%). Other problems reported

were excessive bleeding (7%) and convulsions (2%). It is also evident from the table that the percentages of women with various complications during childbirth (pregnancy delivery, post-delivery) increase with age group. However, younger women aged 15-19 years seem to have more complications due to their first pregnancy and early age of childbirth.

Table- 3: Treatment seeking behavior of the women (in%)

Treatment offered	Pregnancy	Delivery	Post delivery
ANM/LHV/trained dhai	51.2	9.1	29.3
PHC/Govt. Doctor	8.6	21.5	19.7
Private Doctor	2.8	6.6	8.1
Elderly Women/ Traditional Medicine	37.4	62.8	42.9
Total percentage	100	100	100

Table-III highlights the treatment seeking behaviors of the women during pregnancy, delivery and postpartum period. Higher percentage of women depends upon the elderly women/traditional medicine during delivery (62.8%) and post-delivery (42.9%). However, 28.1% women have consulted the doctors during delivery while 11.4% have consulted doctors during pregnancy and 27.8% during post-partum period. It is evident from the table that maximum percentages of women (51.2%) seek the advice of the ANM/LHV during pregnancy than during delivery and postpartum period. This is possible due to the functioning of the Janani Surakhsa Yojana(JSY) launched on 2005 that has identified ASHA (Accredited Social Health Activist) to improve the maternal health service. But, in spite of various initiatives taken by the Government, 62.8% of the women still depend upon the elderly women for delivery. Moreover, it is observed that post-partum care is receiving less attention from the health workers.

Childrearing Practices:

Breast feeding lay the foundation of healthy psychosocial development, besides providing perfect nutrition for infants. Mother's milk is the nature's gift to the baby. Breast milk is the ideal food for all

infants and provides adequate nutritional requirements up to the age of five months. Breastfeeding is the healthiest way for the newborn child to get the best nutrition possible (Jelliffe and Jellife 1977). However, practices such as late initiation of breastfeeding, on feeding of colostrum, faulty weaning practices, etc. are of particular concern, especially in tribal areas due to certain adverse conditions such as lack of access to health, service, illiteracy, unhygienic personal habits, etc.

Table- 4: Initiation of breast feeding after childbirth by age group

		Initiation of breastfeeding (in%)			
Present age Group	Total No of Mothers	Within 24 hours of birth	Second day the birth	Third day of of birth	No response (NR)
15-19	6	83.3	16.7	-	-
20-24	22	72.7	13.6	9.1	4.5
25-29	25	32	44.0	16.0	8.0
30-34	18	11.1	61.1	27.8	-
35-39	19	5.3	68.4	15.8	10.5
40-44	14	-	71.4	14.3	14.3
45-49	17	-	64.7	23.5	11.8
Total	121	26.4	49.6	16.5	7.4

The initiation of breast feeding after childbirth by age group is presented in table IV. Nearly 27% mothers breastfed their child within 24 hours of birth while 50% of the mothers reported that they initiate breast feeding on the second day, and 16.5% on the third day of the birth of the child. 7.4% of the mothers did not give any response. Thus, the practice of discarding colostrum is prevalent among majority of the Bhumija tribal mothers. The reason for not feeding colostrum is their traditional belief, as they consider it thick, cheesy, indigestible, unhygienic and not good for the baby. Table-IV also highlights that younger women are more aware of the goodness of colostrum and therefore initiate breast feeding earlier than the women of higher age-groups.

Table- 5: Duration of breastfeeding with amenorrhea

Seria lNo	Time period	Total number of women breast feeding		Total number of women with resumption of next menses	
No.		Number	%	Number	%
1	(0-6) months	01	0.8	28	23.1
2	(7-12) months	11	9.1	21	17.4
3	(13-24) months	66	54.5	53	43.8
4	(25-36)months	34	28.1	10	8.3
5	No Response	09	7.4	09	7.4
	Total	121	100	121	100

Mean duration of breastfeeding=20.6months Mean duration of postpartum amenorrhea=13.6months

Correlations coefficient = 0.65 :

Women with no resumption of next menses after childbirth are postpartum amenorrheic

N.B: The no response women are excluded from the calculation of correlation coefficient.

It is observed form table-V that about 55% of the mothers breastfed their children up to (13-24) months and 28% mothers breast fed their children for (25-36) months. The mean duration of breastfeeding is 20.6 months which vindicate the practice of prolonged breastfeeding. Thus, Bhumija children enjoy the precious gift of nature for a reasonable period. The mean duration of postpartum amenorrhea (woman with no resumption of breastfeeding shows a positive correlation (r=0.65) with the length of postpartum amenorrhea (PPA).

The practice of giving the infants some special type of feeds before initiating breast milk is widespread in tribal areas. Practically colostrum alone is sufficient to maintain the nutritional demands of the newborns during pre-lacteal stage. But the introduction of pre- lacteal feed among the tribals exposes the new-born to the risk of infection especially diarrhea diseases.

Table-VI shows the introduction of pre-lacteal feed. Honey (38%) and Jaggery (25.6%) was on the top of the list of pre-lacteal feed followed by sugar water (5.8%). Nearly 26% of the mothers did not use my pre-lacteal feed while 4.1% mothers did not give any response.

Table - 6: Feeding and weaning practices

Variables	Total No of Women(N=121)	
	No	%
Introduction of Pre-lacteal feed		
Not given	32	26.4
Sugar water	7	5.8
Jaggery water	31	25.6
Honey	46	38.0
No response	5	4.1
Age of starting supplementary food		
(4-6) months	16	13.2
(6-9) months	74	61.2
(9-12) months	25	20.7
After 12 months	1	0.8
No response	5	4.1

The right time of introducing semisolid or solid food to the baby's diet, supplementing right type of food in right amount and the frequency of feeding , i.e., numbers of times children are feed in a day are most crucial factors to be considered for appropriate feeding and weaning practices. Table-VI highlights the age of starting supplementary food. The growing child requires supplementary feeding besides breast feeding. In the present study, it is found that nearly 61% are initiating supplementary food at the age of (6-9) months, followed by 21% during (9-12) months and 0.8% mother's start giving supplementary food after one year. Only 13.2% are initiating the supplementary food at the age of (4-6) months, 4.1% of the mother did not respond to the above question.

Immunization:

Immunization is one of the important public health measures to prevent diseases. Adequate immunization protects children against several diseases that kill or disable children. Vaccine interacts with immune systems to produce antibodies that protect the body if exposed to the diseases in the future.

Table-7: Percentage of mother who have immunized their children

Present Age group	Total no of Mothers	Total No of children	% non-immuniz	%imm-unized	Vacciness				
					BCG	DTP	Polio	Vit A	Measles
15-19	6	7	14.3	85.7	71.4	85.7	85.7	57.1	42.9
20-24	22	50	18.0	82	72	82	80	40	34
25-29	25	60	21.67	78.3	70	73.3	71.7	38.3	30
30-34	18	49	28.6	71.4	61.2	71.4	65.3	38.8	28.6
35-39	19	53	39.6	60.4	50.9	58.5	65.6	30.2	24.5
40-44	14	43	46.5	53.5	27.9	46.5	37.2	27.9	18.6
45-49	17	57	63.2	19.3	17.5	28.1	21.1	14.0	7.0
Total	121	319	38.9	61.2	50.8	60.8	56.1	32.0	25.4 8

Postnatal preventive child care, particularly Immunization of the infant and children can reduce the risk of death appreciably during infancy and 1-5 years of age. Table -VII reveals the coverage of various vaccines among the children. It was noticed that 39% of the children did not receive a single vaccine among the children were partially of fully vaccinated. Only 51% of the children had received BCG vaccines at the birth. DTP was received only by 61% and the coverage of OPV at birth is 56%. The vaccinations for measles and vitamin A were low. Only 25% of the children received measles and 32% received vitamin A. Table-VII also highlights that practice of child immunization is higher among the mothers of younger age group while it is lower among mothers of higher among. Thus, it is seen that the younger generation is more aware of the effectiveness of vaccination among the children.

Discussions :

The concept of healthy mother and healthy baby is an important aspect of reproductive health care programme. In a developing country like India, poverty illiteracy and multiple pregnancies take their toll of mother's health and that of the infant. Due to multidimensional factors safe motherhood is still a dream for much of India, particularly for its rural (Kumar et al, 1995) and tribal (Basu, 1994) population. Most maternal deaths can be prevented if women have access to basic medical care during pregnancy, childbirth and postpartum period (WHO, 1994). In India these services are provided through a network of health centers as well as through home visits by health workers (Ministry of Health & Family Welfare, 1992).

The present study makes an attempt to apprehend some important factors associated with maternal care and childrearing practices among the Bhumija tribal women of Northern Orissa.

The antenatal care coverage of the Bhumija women is 60.3%, 55.4% consumed IFA tables that the acceptance of antenatal care among the Bhumija women is relatively less than the various tribal population of India.

The study reveals that the percentage of women with no antenatal checkup increases with chronological increases in age-group which is in agreement with NFHS-2 1998-1999 & Gilany and Aref, 2000. This is because the younger mothers seem to be more enthusiastic and anxious & have understood and availed the existing health care facilities better. Further with the introductions of the Janani Suraksha Yojana (JSY) scheme in 2005, there is an impact on the maternal health services of the poor pregnant women.

Studies (Bhatia & Cleland 1995; Prual et al, 2000) showed that 18% of the women reported problems during pregnancy (weakness, anemia/paleness and lower abdominal pain) and a significant proportion during childbirth (Hemorrhage, Obstructed labour, Eclampsia & Sepsis). As a consequence of morbidities during ante-partum and intra-partum period, there is also, an increased risk of occurrence of various morbidities during the postpartum period.

The study also makes an effort to throw light on the childrearing practices of the Bhumija women. Majority of the women (49.6%) initiated breastfeeding on the second day, thus discarding the initial milk (Colostrum) as harmful and impure. This is more noticeable among the women of higher age-groups. Several studies on various populations (NFHS-2,1998-99); Nanda & Samantary, 1999 ; Bhar et al, 2004;Maiti et al, 9 2005;Dash and Choudhury,2005;Tiwari, 2007) shows that maximum mothers discarded colostrum which is in concordance with the present study. The mean duration of breastfeeding is 20.6 months which vindicate the practice of prolonged breastfeeding. The duration of breast feeding shows a positive correlation with the length of postpartum amenorrhea. Various studies (Diggory et al, 1986;Mascie Taylor and Lasker, 1992) have reported similar finding . Most of the mothers give Jaggery water (25.6%) and honey (38%) as pre-lacteal feed as also is evident in the studies of Swain (1985) & Talukdar et al, (1992). The age of starting supplementary food among the Bhumija children is a (6-9) months which is in agreement with the findings of Dakshayani & Gangadhar (2008). The paper reveals the immunization coverage of the Bhumija children. It is interesting to note that BCG, DTP and OPV coverage are satisfactory while the intake of Vit A supplement & measles vaccine is indigent.

The findings of the present study showed that awareness and accessibility of health care services has a significant influence upon the health seeking behavior of the women. Coria-Soto et al. (1996) & Gilany & Aref, (2000) reveal that lack of antenatal care is responsible for the incidence of several complications during pregnancy, childbirth and postpartum period. This is in accordance with the findings of the present study. The immunization coverage of the Bhumija children is satisfactory except measles and Vit A. Vitamin A deficiency is one of the most common nutritional disorders, affecting more that 250 million children worldwide (Bloem et al, 1997) and by improving vitamin A status through supplementation lowers the risk of death.

C onclusion :

Maternal care includes antenatal care during pregnancy, obstetric care and postpartum care delivery. The childrearing practices are also a key element under the Government of India's Child survival and Safe Motherhood (CSSM) programme. However, in this study population there is still a need to reinforce the maternal and child health care practices and gives sufficient importance to it as an intervention to impoverish maternal and child mortality and morbidity.

The present study is an endeavor to comprehend the maternal care and childrearing practices of the Bhumija (tribal) women. Despite of various Governments' initiatives such as the Janani Suraksha Yojana (JSY) and the functioning of ASHA, still majority of the women are contingent on the elderly woman of the village. Moreover, the acceptance of health care facilities is also predominant among the young mothers. The study envisages the impact of duration of breastfeeding on the length of postpartum amenorrhea from the present study that the women of the childbearing age groups are confronted with various complications of high risk. Therefore, there is an urgent need to create awareness in the community as well as in the individual level. The examined strategies of the health care system and childrearing practices need to be examined and improved to render quality care through interpersonal communications and implementation of effective health care programme. The health care delivery system should be designed so as to cater the specific needs of the tribal women during pregnancy and childbirth by ensuring their personal involvement.

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27. IMPACT OF SHG ON DEMOGRAPHY: A STUDY OF THE JUANG TRIBE OF ODISHA

Abstract : *In the present paper an attempt has been made to know the impact of micro finance institutions (Shelf Help Groups) on different demographic components of the Juang Tribe of Odisha. Five Juang dominated villages from Gram Panchayats were selected for data collection. Total 313 SHG members and 397 non-SHG members were interviewed. It is revealed from study that the members of SHG have advantage to arrange money for the marriages compared to their non-SHG counterparts. Thus, the SHGs help indirectly in lowering the age at marriage to some extents. Whatsoever the impact may be, it is not so significant for affecting the average age at, marriage of the Juangs society.*

Further, the SHGs do not have remarkable impact on the fertility of the Juangs. It is seen that the Juang fertility is very high in both the groups. As regards mortality the SHG members show a Lower rate. It is also observed that SHG members get micro loans to take care of their family in a better way. This might be the cause of the lower mortality rates among the SHG members. But the differences is not so remarkable. All the mortality measurements suggest that the Juangs in general have high mortality schedule. Although numerically total sterilization among the non-SHG Juangs is higher, the couple protection rates (CPR) are almost similar (SHG20.16,non-SHG 19.63). Thus, in general, the impact of the Shelf Help Groups on different Demographic aspects of the Juangs cannot be ignored. Therefore, the SHG movements is a welcomed step so the government and it should be implemented throughout the state in its true spirit.

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Jointly with Dr. J.Mohanty

Introduction:

In the present paper an attempt has been made to know the impact of micro finance institutions (Shelf Help Group) on different demographic components. Demography is the study of the structure and the composition of human population and changes there in due to births, death and migration. Demographers are of the opinion that socio economic factors affect the various demographic differentials by the SHG and Non-SHG households.

Methods of the Study:

The present paper is an outcome a research projects conducted during 2009-10 in the Juang concentrated district of Kendhujhar, Odisha. Five Juang dominated villages from two Gram Panchayats of Banspal Block were selected for data collection. Three different structure schedules, as mentioned below have been developed and canvassed among all the Juang households.

a. socio economic schedule
b. demographic schedule
c. educational schedule

Besides these schedules, some open-ended questions were also put to the respondents to know the personal opinion on some of the required facts.

Data collection was done during November 2009 and February 2010. Mainly interview technique was adopted for the collection of data along with the non-participants observation methods. Besides interviewing the heads of the household, some other elite members were also interviewed wherever it was necessary. The following organizations were also contacted during data collection.

a. ICDS workers
b. VLWS and Sarpanches of the two Gram Panchayats
c. Teachers of the village schools
d. Projects Officers of 'Pradhan', 'IDA' and "Prakalpa"

e. Bank managers of Baitarani Gramya Bank Kanjipani branch and Bank of India Suakati branch.
f. BDO and ABDO of Banspal Block
g. DRDO and District Tribal Welfare Officers, Keonjhar
h. District Statistical Officers (JDA), Keonjhar
i. Juang Development Agency,Gonasika

After collection of data, necessary tabulation and the compilation are carried out. Quantification of data is made by the use of required statistical measurements.

Even though it is an empirical study, it has its limitation because of its small sample size. Although it is believed that the result of a small sample is less accurate, it is not always true. In case of the present study, the universe is a primitive tribe-the Juangs. They are a compact homogenous group, confined to the mountainous and forest tracts of Kendujhar district and can be distinguished from the Juangs of the neighboring Dhenakanal districts who are, by and large, plain dwellers. Therefore, the finding of this study can be taken as a representative of the entire Juang tribe of Kendujhar district.

The Juangs of Kendujhar:

The Juangs constitute one of the aboriginal tribal groups of Odisha. They are distributed in the hilly and forest tracts of Kendujhar and Dhenkanal districts. The Juangs of Kendujhar still maintain their traditional culture but their counterparts in Dhenkanal are acculturated and have taken to plain agriculture. As per the 2001 census, their number has estimated to be 42,133 in Odisha (Presently their number would be over 45 thousand).

The Juang belong to Dravidian culture and their language is of Austrik origin. So far as their morphological features are concerned, they are medium stature people and their complexion varies between brown and dark brown. They possess medium hair on face and body. Their nose is medium and they do not show any kind of Mongolian eye fold.

The Juangs are an Endogamous tribe and they strictly follow this custom. Each Juang village is usually an exogamous unit- almost belonging to one clan. Most of their clan symbols are animate objects (animals, trees, flowers etc.). Their society is patrilocal and patriarchal. Immediately after marriage, the son is separated from the family of orientation (the original family) and forms the family of procreation (the new family), normally in the groom's village. Child marriage was practiced long ago, but is very few between at present.

Most of the Juangs in Kendujhar depend on the forest for their livelihood. Shifting cultivation is still l practice along with forgery. Government and NGOs are trying hard to spread plain cultivation among the Juangs by providing them land and other agricultural inputs. Juangs commonly cultivate paddy, sesame and millet. However, the Juangs have tried wheat cultivation and coffee cultivation very recently with the help of J.D.A. (it was a failure attempt)

Youth dormitory (Mandaghara) plays an important role in Juang community. Every village, small or large, must have a dormitory house. It is usually situated at one end or at the center of the village. The village deity is placed in the front of the dormitory house. Most of the unmarried young boys sleep inside the dormitory. Throughout the day and night there is an active fire placed at the center of the dormitory. Interestingly there are no doors in this dormitory house. This is a place where all kinds of village activities are performed. Dormitory also acts as a guest house for the outsiders. Howsoever poor a Juang may be, he would not fail to contribute for the construction of the village dormitory house. Probably it is because of the dormitory house, the Juangs are very closely united and it is with this background and Self-Help Groups (SHGs) are easily formed in the Juang villages.

The Selected villages:

Five Juang villages from two blocks are selected for the purpose of the study. The following table shows the selected villages, their distance from Kendujhar and the number of Juang households. Also see the Block map to trace the selected villages (Table-1)

TABLE - 1: Selected Village of Banspal Block

Gram Panchayat	Name of the village	Distance from Kendujhar Town	Number of Households
Champei	Champei (Tala)	17KM	54
	Remulighati	15KM	23
	Radhuan	20KM	49
Kuanr	Tala Panasanasaa	22KM	32
	Upper Panasanasaa	24KM	63

Marital Status and SHGs :

Composition of marital status of any population is very important to show the vulnerability of population carrying the risk of fertility. The following table shows the composition of marital status of the SHG and Non-SHG households.

TABLE - 2 : Population by marital status of SHG & Non-SHG

Population	Popn of SHG household			Popn of Non-SHG household		
Category	Male	Female	Total	Male	Female	Total
Unmarried%	7(11.18)		16(9.94)	18(9.52)		23(11.06)
	33(10.54)			41(10.33)		
Married(%)	129(84.87)		129(80.12)	163(86.24)		163(78.37)
	258(82.43)			326(82.12)		
Widowed(%)	06(3.95)	13(8.07)	19(6.07)	08(4.23)		17(8.17)
				25(6.30)		
Divorced &	-		03(1.86)	-	05(2.40)	
Separated(%)	03(0.96)			05(1.26)		
Total(%)	152(100)		161(100)	189(100)		208(100)
	313(100)			397(100)		

(Population over 15 Years is considered for the calculation of marital status)

It is noticed that nearly 82% of the population (aged 15 years & above) of both the categories are married. But the proportion of married males among the SHG households is higher(SHG males 84.80%, non-SHG males 86.20%) compared to the non-SHG. Similarly, the proportion of married females among the SHG is higher that the Non- SHG

households (SHG females 80.10%, Non-SHG females78.40%) in the selected Juang village. On the other hand, the unmarried and divorces proportions are comparatively higher among the non-SHG females, while the widowed proportion is same in both the categories. Thus, by analyzing the composition of marital status it can be said that the SHG population is slightly vulnerable for high population growth compared to their SHG counterparts due to the presence of higher proportion of married females in the SHG category. But how far the micro credit institutions have contributed to this higher proportion of married females is not clear. Yes, it can be said that SHG members have availed loans to meet the marriage expenses while the non-SHG households might have postponed the marriages due to shortage of funds. Interestingly in the Juang community, like that of other tribal, all the kith and kin along with all then villagers are invited for the marriage feast. So, they wait for the better financial position for the marriages. In this regard the members of the SHG have an advantage to arrange money for the marriages compared to their non-SHG counterparts.

Age at Marriage and SHG :

Age at Marriages is an important variable for the beginning of the fertility schedule of a population.Table-3 shows the distribution of age of the ever-married population.

TABLE - 3: Age at marriage of the ever-married population

Age of Marriage	SHG		Non SHG	
	Male(%)	Female%	Male %	Female%
Below 15 yr.	-	09(6.21)	-	13(7.03)
15 to19 Yr.	05(3.70)	95(65.52)	09(5.26)	133(71.89)
20 to 24 Yr.	88(65.19)	38(26.21)	116(67.84)	35(13.92)
25 to 29 Yr.	40(29.63)	03(29.63)	43(25.15)	04(2.16)
30Yr above	02(1.48)	-	03(1.75)	-
Total	135(100)	145(100)	171(100)	185(100)
	23.40 years	17.90 years	23.0 Years	17.50 Years

The distribution of age at marriages does not show much disparity between the SHG and Non-SHG population. The calculation of the average age at marriage also reveals the non-SHG population.

The calculation of the average age at marriage also reveals the same fact. The age at marriage is almost same in both the categories. The finding shows that females of both the categories marry at the age nearly 18 years (SHG 17.90 ,Non-SHG 17.50) and the age of marriage of the males is around 23 years (SHG 23.40, Non-SHG 23.00) in both categories. Normally it is seen that in tribal communities the reporting of age is a little defective. However, this error would not substantially affect the average ages. Further in the present study, maximum care has been taken for collection corrects ages from the respondents. However, the impact of the SHGs on these aspects is not very much felt. If at all the SHGs have some role in helping their members, it is only by providing small loans for conducting the marriages without postponements. Thus, the SHGs help indirectly in lowering the age at marriage to some extends. Whatsoever the impact may be, it is not so significant for affecting the age at marriage of the Juangs.

Births, Fertility and SHG:

This sub chapter compares the births and fertility rates both the SHG and non-SHG Juang population. It is seen in the previous sub chapter SHGs have not affected much the age at marriage and the composition of marital status. If there is any positive impact of the SHGs on the demographic components, then it will reflect on the various fertility measurements and mortality measurements. The following are some of the Fertility measurement:

TABLE - 4: Births and fertility of the SHGs & Non-SHG Juangs

Sr.	Measure of Fertility	SHG	Non SHG
1.	Birth rate(Live births to total population)	41(21/512)	42(28/661)
2.	General fertility rate (live births to female fecund population)	165(21/127)	165(28/170)
3.	Average No. of children born to women aged 45 years & above	5.97(203/34)	6.34(241/38)
4.	Child to women ratio(children aged 0 to 5 yrs. to women aged 15 to 44yrs	362(46/127)	459(75/170)

(Rates per thousand has been calculated except the average children born to women)

The comparative fertility table shows that there are no significant differences between the two groups of Juangs. Interestingly, the general Fertility Rate is same (165 per thousand) for both the categories. The birth rate almost similar (SHG 41 , Non SHG 42) per thousand live births. Even the children born to women in both groups are nearly equal (SHG 5.97, Non-SHG 6.34).A negligible though, is noticed in child to Women Ratio. Although this a crude measurement, it takes the births of the last five years into consideration. The higher child woman ratio among the non-SHG population (SHG 362 , Non-SHG 459) might be the result of higher births during any years or two of the last five years (except the current year).Therefore it can be safely said that the SHGs do not have remarkable impact on the fertility of the JUANGS. It is seen that the Juang fertility is very high in both the groups.

Deaths, Mortality and SHG:

Like fertility measurement, mortality measurement could also show the differences due to certain variable. The mortality pattern of both the groups has been discussed very closely in Table-5

TABLE - 5 : Deaths and Mortality of the SHG and Non-SHG Juangs

Sl. No.	Measures of Morality	SHG Juangs	Non-SHG Juangs
1.	Death Rate (Deaths to the Total Population	23(12/512)	26(17/661)
2.	Infant Mortality Rate (Deaths of infants to live births)	143(3/21)	143(4/28)
3.	Average children died to women aged 45 yrs. & above	2.88(98/34)	3.08(117/38)

(Data on births and deaths were cross-checked from the ICDS centers of the villages)

The table shows that the mortality rates of both the Juang categories are very similar like those of the fertility rates. However, the negligible differences marked between the two groups may be due to slight economics disparity between the two groups. As the SHG members get micro loans, they care of their family in a better way. But

the differences are not so remarkable. All the mortality measurements suggest that the Juangs in generals have a high mortality schedule.

Family Planning Acceptors and SHG:

Juangs, like the others primitive tribes of Odisha, avoid discussing the family planning or family welfare activities with outsiders. The data for this section have been collected of household data. The ICDS centers of the village and later verified at the time of collection of household data. The followings facts and figures show the practice of modern family planning methods.

TABLE - 6 : F. P. Acceptors among the Juangs (Sterilization only)

Methods	SHG	%	Non-SHG	%
Vasectomy	3	11.54	5	
			15.63	
Tubectomy	23	88.46	27	
			(84.38)	
Total Sterilization	26	100	32	100
Couple protection	20.16	26/129	19.63	
rate			(32/163)	

The family planning data also reveals that both the SHG and Non-SHG Juangs stands at equal footing. However, the rate of tubectomy (female sterilization) is slightly higher among the SHG category to their counterparts (SHG 88.46 , Non-SHG 84.38).Although numerically total sterilization among the non-SHG Juangs is higher , the couple protection rates (CPR) are almost similar (SHG 20.16 , Non-SHG 19.63).

It is also observed that Juangs follow certain tradition methods of fertility regulation , but it was difficult to gather those data in this time-bound limited study . It can only be said that whatsoever traditional methods the Juangs adopt, the Self-Help Groups might not have any role in that. Thus, in general the SHGs do not have any definite impact on family planning practices of the Juangs.

Findings and conclusion:

The following are the major findings of the study.

* The members of the SHG have an advantage to arrange money for the marriages compared to their non-SHG counterparts.
* Thus, the SHGs help indirectly in lowering the age at marriage to some extends. Whatsoever the impact may be, it is not so significant for affecting the average age at marriage of the Juangs.
* The SHGs do not have remarkable impacts on the fertility of the Juangs. It is seen that the Juangs fertility is very high in both the groups.
* As the SHG members get micro loans, they take care of their family in a better way. This might be the cause of lower mortality among the SHG members. But the differences are not so remarkable. All the mortality, measurements suggests that the Juangs in general have a high morality schedule.
* Although numerically total sterilization among the non-SHG Juangs is higher, the couple.
* Protection rates (CPR) are almost similar (SHG 20.16,Non-SHG 19.63).

Thus, in general the impact of the Shelf Help Groups on different Demographic aspects of the Juangs cannot be ignored. Therefore, the SHG movement is a welcome step of the Government and it should be implemented throughout the state in its true spirit.

28. HEALTHCARE MANAGEMENT AND NUTRITIONAL STATUS OF THE LODHA TRIBE OF ODISHA

Abstract: *The present study was undertaken among one of the primitive tribes of Odisha, "The Lodha." They are mostly distributed in the Mayurbhanj District of Odisha adjacent to Medinipur of west Bengal. The survey was confined to one block having largest Lodha Concentration. The Lodha are mostly pre-agriculturists. they live in subsistence level of economy. The main objective of the study was to find out the healthcare management and the nutritional status of the Lodha tribe. Both body mass index (BMI) and Adult Calorie value (ACV) methods were adopted to know the nutritional status of the Lodha Tribe. The study reveals that 32% of Lodha avail health service by the traditional healers, 52% by the ASHA worker, 12% by ANM and only 4% Lodha avail health facilities in the primary Health Centre (P HC). The health management of Lodha Community seems to be better due to the introduction of ASHA worker.*

The BMI shows that severe malnourished among male is 16% and female is 13.2% Obese distribution among male is 7.2% and among female is 5.6%. Thus, the total malnourished among the Lodha male is 54.5% and among the female is 49.2%' It is observed that the Lodha males are more malnourished compared to the Lodha females. Further, the Adult Calorie value (ACV) shows that 18.5% of Lodha households are severely malnourished condition, 16.3% are moderately malnourished, 45.8% are mild malnourished, 17.2% of them are in normal nutritional range, 2.2% are found over malnourished. This clearly

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shows that the most of the Lodha households are under serve malnourished.

Thus, the analysis of BMI and ACV reveal that the Lodha tribes of Mayurbhanj district are very much malnourished. Several factors like insufficient food intake per day, Overload of work, less income, ignorant of food habits and illiteracy for such conditions.There is a need for special nutritional programme by the government and Non-Government organization for the upliftment of the Lodha community.

Introduction :

The nutritional status of any population is the product of its cultural and ecological factors. Man has always been dependent, to a varying extent, on fluctuating ecological system balance between people and basic resources and its surroundings ecological systems. The utility of resources has constantly increased but in many cases natural resources do not increase at the same pace which results in change of techno-economic pursuits (Chandrasekhar, 1954). Carrying capacity is thus basically conditioned by a satisfied relation between its food resources and its cultural realities as manifested in the form of available resources. Kessing, 1957, Sahul1980, Write 1985 and Sinhal1986 have studied the impact of tribal culture on health and nutrition.

It is recognized that as a result of extreme poverty, the intake of various essential constituents of food may be inadequate among the tribal in India. The nature and extent of deficiency varies from tribe and also from place to place among the same tribe. There is a general view that primitive tribes are not nourished, but empirical data from India (Sengupta 1969 and Rao et al., 1985) show that the nutritional status of relatively less acculturated primitive tribes is mostly satisfactory. However certain ecological stress increases the intensity of communicable disease among the tribals (Sadhu, 1980,Sinha, 1986) which in turn deteriorates the nutritional status because of the well-known interaction between health, nutrition and infection. Scrimshaw et al., 1986, Choudhary 1954, Gore at al. 1977, Dash 1997 and Sabat at al., 1997

have observed in their studies that tribal posses a low nutritional status as per Indian standard.

In remote tribal areas of India, severe shortfall in skilled health professionals manifests itself in the form of grave healthcare issues for children due to lack of immunization, health monitoring, and emergency care. These along with the seasonal recurrent epidemics like malaria, pose a severe threat to child survival, killing numerous children in India every year.

The National Health Policy of India (2002) acknowledges acute shortage of healthcare professionals especially in rural and tribe areas. Strategies under current consideration to combat this issue in clude increasing the age of retirement of doctors enabling them to work longer, decentralizing recruitment of staff top state and sub-state levels, providing numerous financial and career development incentives and offering future educational benefits to children of such doctors who are in rural service.

At this juncture, it becomes important to pose questions: What will increase the motivation of the health workforce to work in underserved areas? Why is the health workforce in India urban-centric? How do we deal with the absence and inadequacies of the health workforce in rural and tribal areas? Is the mere physical presence of healthcare personnel in rural areas adequate? Will health professionals, who go to serve in a rural area because of personal incentives, make a difference to healthcare access and child survival in these places? There is evidence from other developing countries and contexts that a whole range of factors - good income, training and appreciation (Vietnam), professional exchange and career development programmes, the need to feel valued and supported in individual roles, and community level trust (Tanzania) play important roles in motivating healthcare workers to work in rural- regions. A recent systematic review indicates that while financial incentives formed the "core" of motivation, other factors such as recognition and supportive infrastructure for functioning have a profound effect on the ,morale of the workforce. it has also been illustrated that managers and healthcare workers tend to view motivational factors through different lenses, and

hence, there is a danger of incentive systems being set up on the basis of inappropriate assumptions. Given the complexity of this issue , it is not surprising that many countries are still grappling with the local realities of involving and implementing "best-fit" health workforce strategies that will work in their contexts.

ASHA will be a health activist in the community who will create awareness on health and its social determinants and mobilize the community towards local health planning and increased utilization and accountability of the existing health services. She will be a promoter of good health practices. She will also provide a minimum package of curative care as appropriate and feasible for that level and make timely referrals.

A total of 3700 ASHAs are in need to cover all the villages and hamlets in Mayurbhanj (NRHM, GOVT. of India , Ministry of Health and Family Welfare, New Delhi, 2008-09)

In the present study an attempt has been made to highlight some specific health management practices and nutritional status of the Lodha Tribe of Odisha.

The Lodha: The Lodha are one of the primitive tribes of Odisha . During British rule they were categorized as the de notified tribe. Later they were declared as the criminal tribe ,due to their involvement in theft, rubbery and such other antisocial activities .After the independence, they were included under the list (5th Schedule) of primitive tribes. Lodhas are mostly distributed in Suliapada and Morada blocks of Mayurbhanj District of Odisha . This part of Odisha is close to South of West Bengal and covered with forest .The economic condition of the tribe is very poor. They still Live in subsistence level .Their population was 8,905 in 2001 census Hardly 20% of Lodhas are Literate .The present study was confined to the Suliapada Block where a large concentration of Lodha population is found.

Objectives : The following are the primary objectives of the study

i) To find out the health management practices of the Lodha Tribe

ii) To reveal the nutritional status of the tribe

DESINGN STUDY

i. **Village Section:** The design of study is an indispensable part of any scientific investigation. Starting from the section of the villages to the completion of analysis the use of appropriate methods is desirable. The villages covered in the present study are situated in the Suliapada Block of Mayurbhanj District of Odisha. The villages are selected considering their accessibility and size.

ii. **House Coverage:** As many as 319 households were selected for the study out of the total 398 households from the five identified villages.

Table -1 : Households by the distance from district Headquarters

Sl No	Name of the Village	Distance (From theHQs)	Total households in village	Selected Household
1	Patharamesa	46KM	169	139
2	Dhobani	44KM	62	48
3	Kantasahi	45KM	92	76
4	Sansala	43KM	43	32
5	Mankadaganja	42	32	24
	Average distance	44KM	398	319(80%)

" Households are selected purposively to find one male and one female of 19-49 yrs each.

iii. Data collection: The study was designed to collect data on different household information, health complications, nutritional status and health care management. Thus, an extensive schedule was prepared and was pre-tasted in order to know the response and reliability prior to actual study. Thus, data on the household information, health condition and certain other socio-cultural variables are collected on the pre-tasted schedules. The head of the households are interviewed for the household data and the

anthropometry measurements are collected from the adult men and women of 19-49 years of age (319 males and equal numbers of female). Mostly interviewed method has been adopted for data collection. Besides quantitative data on health conditions and access services, Qualitative data are also collected through Focus Group Discussion (FGD). Data on nutritional anthropometry are collected from both men and women. Height and weight are measured following the standard procedures, using a stature meter for height and weighting machine for weight. The anthropometric data (Height and weight) are collected only from those men and women who are willing to provide their measurement.

iv. **Data Analysis:** The data (after collection) are processed and analyzed with SPSS in accordance with the outline laid for the purpose. This is essential to ensure that all data are relevant for comparisons and analysis. The term 'Analysis' refers to the computation of certain measures, calculations of percentage and cross tabulation for finding the nutritional status with the existing health care practices.

v. **Nutritional Anthropometry:** The height and weight of the individuals are measured and recorded to the nearest 0.1 cm and 0.5 kg respectively. Body mass index (BMI) is computed using the following standard equation. BMJ= Weight (Kg) height (m2))

Nutrition status is evaluated using the internationally accepted BM guideline (Word Health Organization,1995). The following cut-off points are used to know the degree of malnutrition, chronic energy deficiency (CED)

CED grade III	: BMI<16.00(Severe)
CED grade II	: BMI 16.00 to 16.99(Moderate)
CED grade I	: BMI 17.00 to 18.49 (Mild)
Normal	: BMI 18.50 to 24.99 (Normal)
Over weight	: BMI 25.00 to 30.00 (Overweight)
Obsessive	: BMI- >31.00 (Obese)

vi. **Calorific Value:** The actual calorie of the food consumption of the family (in kcl) are measured and recorded. The Adult calorific value was calculated to find out the nutritional status of the Tribe. The adult calorie intake requirement for an individual is 2880 Kcl. The ICMR standard equations are followed to calculate the Adult Unit (ACU) and Adult Calorific Value(ACV).

* ACU (of the household) =

(Adults x 1) + (Teens x .08) + (children x 0.5) + (Aged x 0.6)

* ACV (of the house hold) =

$$\frac{\text{Total Calorie consumption value of the household}}{\text{ACU of the household}}$$

Result and Discussion :

Before an scientific analysis it is important to know the basic demographic figures of the population under study.

Table-2 Distribution of Lodha population by Broad Age Category

Age	Male	Female	Total	Sex Ratio (F/Mx100)
0-14	273	268	541	982
15-59	355	358	715	1003
60+	33	35	68	1060
Total	663	661	1324	997

The following demographic figures are obtained from the above table.

a) Size of the household - 4.15
b) Sex Ratio 997 females per 1000 males
c) Dependency Ratio is 0.85

The study shows that the household (family) size is about four which is good for the Tribe. it is noticed that the total sex ratio is mostly balanced but the sex ratio of below 15 years is favouring to males. This is not a good for any population. However, it requires a comprehensive study ascertain the situation. Similarly, dependency ratio is below one, which is also good for the Lodha community.

Table-3 : Household Distribution by Healthcare Management

Sl No.	System of health care management	No of household	%
1	Traditional	101	31.7
2	ASHA	166	52.0
3	ANM	38	11.9
4	PHC	14	4.4
	Total	319	100.0

Above table reveals the health care management of the Lodha community by different systems. it is noticed that 31.7% of Lodha avail health service by the traditional healers, 52.0% by the ASHA workers, 11.9% by ANMs and only 4.4% Lodha avail health facilities at PHCs. it clearly shows that a majority of Lodha are availing service of the ASHA workers. ASHA is a village level worker, who directly meets the household member and motivates them for health care facilities and solves the health complicates. Due to ASHAs involvement the immunization and institutional delivery rates are slightly high. ASHA provides information on health and nutrition on Mamata Diwas held on every Tuesday and Friday. Mamata Diwas is held for pregnant women, undernourished children and adolescent girls for their health check- up, where ASHA plays a vital role to motivate the target group. Health management of Lodha community is slightly better due to the introduction of ASHA workers

Table - 4: Distribution of Male by the Degree of Nutrition

Sl. No.	Degree of Nutrition	No. of males	%
1.	Servere Malnourished	51	16.0
2.	Moderate Malnourished	38	11.9
3.	Mild Malnourished	57	17.9
4.	Normal	145	45.5
5.	Over weight	15	4.7
6.	Obsessive	13	4.1
	Total	319	10.00

One male (19-49yrs) from each selected households is Measured

Table-4 shows the degree of nutrition of Lodha male by considering their Body Mass Index. it is found 16.0% of male come under severe malnutrition, 11.9% under moderate malnutrition and 17.9% under mild malnutrition. Total 45.5% male are in the normal range of BMI. However, 4.7% are found to be overweight and 4.1% of Lodha males are obese.

Table-5: Distribution of Female by the Degree of Nutrition

Sl. No.	Degree of Nutrition	No of Lodha Females	%
1.	Severe Malnourished	42	13.2
2.	Moderate Malnourished	80	25.1
3.	Mild Malnourished	15	4.7
4.	Normal	162	50.8
5.	Over weight	12	3.8
6.	Obsessive	08	2.5
	Total	319	10.00

(One female from (19-49yrs) from each selected household is measured.)

Table-5 reveals the BMI of female Lodha. it shows that 13.2% of Lodha female comes under severe malnutrition,25.1% under moderate malnutrition, 50.8% Lodha are in the range. However,3.8% are overweight and interestingly 2.5% of Lodha females are found to be obese. This clearly shows that a sizeable proportion of the Lodha female are below the normal level of BMI. The average calories intake of an adult Lodha is approximately 2099 kilocalorie per day. This has been calculated from the staple diet of the Lodha. The total calorie requirement, for an adult moderate working male as per ICMR is 2880 Kc (ICMR 1989, 1994). This indicates that Lodhas are undernourished with respect to the calorific value of the food they consume. The study shows that severe malnourished among male is 16% and female is 13.2%. Obese distribution among female is 215%. Thus, the total malnourished among the Lodha male is 54% and among the female is 49.2%. it is observed that the Lodha are more malnourished compared to the Lodha females.

Besides the Body Mass Index, the calorific values also calculated by different household by adopting the standard procedure of Adult (ACV)

Table - 6 : Distribution of Household by Adult Calorific Value (ACV)

Sl No	Degree of Nutrition	No of Household	%
1	-30% (Severe Malnourish)	59	18.5
2	20% -30% (Moderate Malnourish)	52	16.3
3	10%-20% (Mild malnourish)	146	45.8
4	0% -10% (Normal)	55	17.2
5	10% + (Over Nutrition)	07	2.2
	Total	319	100.0

Table-6 shows the nutritional status of the Lodha by Adult Calorie value. The table reveals that 18.5% of Lodha household are severely malnourished 16.3% are moderately malnourished, 45.8% mild malnourished, 17.2% are in normal nutritional range whereas 2.2 % are found over malnourished.

Conclusion :

The present study has been undertaken to describe the Healthcare management and Nutritional status of the Lodha Tribe of Suliapada block of Mayurbhanj, Odisha. The Lodha manages their health complication by the help of different local healers and institutions. it is noticed that about 32% of Lodha families avail health services by the traditional healers, 52% by the ASHA workers, 12% by ANMs and only 4% Lodha households avail health facilities from the primary health center(PHC). it clearly shows that a majority of Lodha are availing service of the ASHA workers. ASHA is a village level worker, who directly meets the household members and motivate them for health care facilities. She also solves the health complications of the people. Due to ASHA involvement, immunization and institutional delivery rates are gradually increasing. ASHA provides information on health and nutrition on

"Mamata Diwas" held on every Tuesday and Friday. Mamata Diwas is held for pregnant Women, undernourished children and adolescent girls for their health check-up, where ASHA plays a vital role to motivate the target group. Health management of Lodha community seems to be better due to the introduction of ASHA workers.

The study shows that severe malnourished among female is 13.2% Obese and overweight distribution among the male is 8.8% and among the female is 6.3%. Thus, the total malnourished among the Lodha male is 54.5% and among the female is 49.2%. it is observed that the Lodha males are more malnourished compare to the Lodha females.

Further, the Adult Calorie Value (ACV) shows 18.5% of Lodha households are severely malnourished, 45.8% mild malnourished, 17.2% of are in normal nutritional range, 2.2% of are found over malnourished. Thus, clearly shows that the most of the Lodha are under severe malnutrition.

Thus, both BMI and ACV reveal that the Lodha Population of Mayurbhanj district are very much malnourished. Several factors like insufficient food intake per day, Overload of work, less income, ignorant of food habits and illiteracy are responsible for such conditions. There is a need for special nutritional programme by the government and non-government organizations for the upliftment of Lodha Tribe of Odisha.

29. SOCIAL DEMOGRAPHY AND DEVELOPMENT OF THE TRIBES OF THE ODISHA

Abstract: *Tribal's are the original settlers of all nations, so also of India. There are over 100million tribal population (104 million as per 2011 Census) in India at present belonging to over 700 different tribal communities (705 as per2011).In Odisha their number is 62 with a population of 9.6 million as per 2011. The relative growth of tribal population is less compared to the total population of the state since 1961. It is mostly due to higher Infant Mortality and Maternal Mortality Rates among the tribals. As regards literacy and urban proportion the tribals also show lower rates compared to the state population during the same period. Interestingly the Sex Ratio favours females among the tribal's (1029 females per 1000 males), while it favours males in case of the total population of the state (979 females per 1000 males). This is definitely due to the higher sex selective deaths(female death)among the non tribal population compared to those of the tribal population. This clearly indicates that the preference for sons is high among non-tribals whereas the status of women is high among the tribes. However, the total socio-demographic and development scenario of the tribes of Odisha is not so encouraging.*

Introduction:

Tribal population form a major segment of the World Population. They are noticed all over the world. As per Oxford Dictionary the word Tribe is derived from the Latin word tribus meaning a group of people. Later Anthropologists have defined a tribe as a group of people residing in a geographical area, speaking a common dialect, sharing a common way of life and having a political system. They are known by different names such as Aboriginal, Adimjati, Adivasi, Ausuchit jati, Autochthonous people ,Vanyajati, Ethnic people, Girijan, Indigenous,

Janjati, Native people, Primitive and recently as vulnerable people, (Elwin 1943, Bose 1953,Royburmen 2005).

In India, after Independence, a majority of the so called tribes are listed under Schedule 6th(for Northeastern region) &Schedule 5th(for the rest of India) under the provision of Article 342of the Constitution and hence are identified as the Scheduled Tribes(ST).India constitutes about 8.6%ScheduledTribe population(104million) as per 2011 Census. In 2001 it was 8.2%(84 million). The major tribes of India are the Gond, the Bhil, the Santhal, the Oraon, the Mina, the Kandh etc. They mostly reside in the forest and hill areas. However in search of job some proportion of tribal population have migrated to near by towns and cities, therefore they are staying in urban and industrial agglomerations. The states of Madhya Pradesh, Odisha, Bihar, Chhattisgarh, Jharkhand, Andhra Pradesh, Telangana, Maharashtra, Gujarat, West Bengal, the Northeastern states and the Andaman & Nicobar Islands have a larger concentration of Tribal Population, (Census of India 2011).

Geographical Distribution:

Tribes of India are mainly distributed in seven regions.

1. **Northeastern Region** : Arunachal Pradesh, Assam, Manipur Meghalaya, Mizoram, Sikkim and Tripura. Major Tribes of this area are Mizo, Naga, Khasi, Bodo and Garo.
2. **Eastern Region** :Bihar, Jharkhand, Odisha, Sikkim, West Bengal. Major tribes of this are Santhal, Kandha, Gond, Oraon,Kharia,Saura, Juang, Bunyan, Lodha, Bhumij, Bathudi, Binjhia, Birhor,Munda, Kolha,Mahali, Kora,Kissan, Chakma,Asur,Bhutia, Lepcha, etc.
3. **Northern Region:** Jamu & Kashmir, Himanchal Pradesh, Uttarakhand, Uttar Pradesh. Important tribes of this region are Brokpa, Lepchaa, Gujar, Gadi, Bhotia, Jodh, Mocha, etc.
4. Central Region: Madhya Pradesh, Chhattisgarh. Major tribes are Gond and Chenchu, Bhil, Agharia, Sor, Panika, Mina, Mana, Kawar, etc.
5. **Western Region**: Gujarat, Maharashtra, Rajasthan, Goa, Daman, Diu, Dadra & Nagar Haveli. Major tribes are Bhil, Kissan, Ho, Mina,

Garasia, Banjara, Sansi, Dabla, Bali, Banjara, Saharia, Dubla, Dhodia, Varli, etc.

6. **Southern Region:** Andhra Pradesh, Telengana, Karnataka, Kerala, Tamilnadu. Major tribes are Soara, Toda, Kadar, Didayi, Kurumba, Halakki, Koya, Koraga, Paniya, Palakkad, Lunas, Celina's, etc.
7. **Island Region:** Andaman and Nicobar, Lakshadweep. Major tribes areGreat Andamanese, Onge, Jarwa, Sentinels, Necoberese, Shompem, Aminidivs, Malmis, etc.

Scheduled Tribes of Odisha :

Odisha became an independent state in 1936 hence separate data for Odisha was available since 1941 Census. Initially 44 tribes became Scheduled after inclusion of their names in the Odisha list of tribes of 5th Schedule of the Constitution. However 18 more tribal communities were identified and included in the Schedule before the Census operations of 1961, increasing the numbers of Scheduled Tribes to 62. Since then there was no inclusion rather had some confusion in their names which is not yet corrected. For example:

a. Birhor, Maankidi, Maankidiaa(they are one tribe but listed as three tribes)
b. Mundaa and Mundaari(instead of one tribe listed as two tribes)
c. Kol, Ho, Kolhoand Kollohoraa (instead of one tribe listed as four)
d. Binjhaal and Binjhiaa (they are actually one tribe but listed as two tribes)
e. Bhumiaa and Bhuiaan(instead of one tribe listed as two tribes)
f. Bhumij and Desuaa Bhumij (listed as two tribes instead of one tribe)
g. Kawar,Kharwar and Khariaa(listed as three tribes instead of one)
h. Koraa and Koruaa (instead of one tribe listed as two tribes)
i. Kandha and Kutiaa(they are one tribe but Kandha is included under Kandh/Kond)
j. Sabar and Lodhaa (they are two tribes but some Lodhaa are included under Sabar tribe).

Such confusions have created a lot of demographic problems which have not only affected their socio-economic development but also affects their exact identification (Mahapatra and Dash 1977).

Ethnic Confusion:

The first problem to resolve, while discussing social and structure and demography of the schedule of tribes in Odisha, is to clear the confusion in the schedule of tribes in Odisha as per the president order under the constitution. It is a different issue whether the census authorities do discover separately, members belonging to some scheduled tribes, who are actually of the same ethnic stock. Similarly because of lumping together of several ethnic categories due to administrative or other decisions some particular Scheduled Tribes stand for two or more ethnic groups. The first type of confusion can be see with reference to three Scheduled Tribes: the Birhor, Mankidi and Mankidia, who actually belong to the Birhor ethnic group and are known in different names in different areas as Mankidi or Mankidia-following the same occupation, speaking the same language and having the same social structure. Again the Kuli has been separately scheduled from Koli. As the Kol has been shown to be separated from the Ho and the Kolha. The Munda and the Mundari are again shown asseparate groups. Further the Mahali and the Munda-Mahali, the Lodha and the Lodha-sabar, the Binjhal and the Binjhia are included as separate Scheduled Tribes. In the second category of confusion the Saora of Ganjam and Koroput agencies have been lumped together with the Sahara who are very much separate from them and are distributed in other districts. Similarly, we have a Scheduled Tribe called the Koli included under another ethnic group called the Malhar. Similarly the Kolha, Kol and the Loharas are included in one Scheduled Tribe category. Further the Munda, Munda-Lohar, Munda-Mahali are included in another Scheduled Tribe category. Because of such confusions of ethnic categories in the Schedule of tribes in Odisha, there is bound to be some demographic and structural confusions. But before eradicating this confusion through extensive and intensive research, in the interest of comparison and expeditious use of the available documents and statistics, I have still used the present list of the Scheduled Tribes of Odisha for this paper.

Growth and Decline of The Scheduled Tribe population:

An interesting picture of the Secluded Tribes of Odisha is presented in Tabe-1. Although population of ST has increased in different Censuses, their proportion to the State population has shown a gradual decrease. The decadal Growth Rates show a fluctuating but downward trend as also reflected in Figures 01 to 03.Low fertility, high mortality and high interstate migration are the three main causes for the decline of tribal proportion in Odisha. Some scholars mention that the spread of Christianity among tribals is the main factor of the declining trend. But, my field studies on the tribals of Odisha over forty years reveal that although a sizable proportion have accepted Christianity they have still retained their tribal identity in most of the cases. Therefore, spread of Christianity as a minor factor for the decline of the tribal population could not be a factor. Rather, the high rate of infant, child and maternal mortality along with poverty are the consequential factors for the declining trend. This is one of the main concerns of the Government. Recently some specific health and economic developmental measures are being implemented in the Tribal dominated areas (Scheduled Areas) for combating the poor economic and health scenario of the Tribes of Odisha. We should soon see the results on expected lines.

When we compare the growth of the total population in Odisha between 2001 and 2011 Censuses with that of the Scheduled Tribe population in the same period we come across some differences. Whereas the total population registered an increaseof19.24% during the decade 2001-11, the Scheduled Tribe population experienced a lesser growth with 17.75% increase in the same period. This decrease may be due to the higher mortality rates among the tribes and tribal migration to other States. Although we are not sure, in the absence of census data of migration to the neighboring states. This is evidenced indirectly from the discrepancy between the growth of tribal population of the statein2001 and 2011.

The growth and decline of the Scheduled Tribe population can more fruitfully be understood when we take each individual Scheduled

Tribe. We have selected only 19major Scheduled Tribes having One Lakh or more population in 2011 because of the limitation of time and space here. The tribe and their population increase have been shown in Table -2.It is found that the Kolha have been registered the maximum decadal growth (25.22%) whereas the Kissan have to their credit a minimal growth (3.11%) during the same period. The most numerous scheduled tribe, the Khond have shown a growth rate of 16.61%, the advanced tribe Santhal have shown 15.13% and another important Scheduled Tribe, the Saora have registered about 13% growth during the decade.

It is very disheartening to note that as many as 27 Scheduled Tribes (during 1991-2001)and 14 Scheduled Tribes(during 2001-2011)have registered decline in their population. However as many as 9 tribes have declined in both the Censuses. The details are given in Table-3. The highest decline is noted in the categories of the Mankidi(-76.15%), the Kol (-70.39%) and the Korwa (-61.02), presumably because in 2011 Census the enumerators included the so called "Kol" under the category Kolha, the “Korwa” under Kharwar and the “Mankidi” under2 the Mankidia. The next highest decline is observed among the Kotia(-67.89%) and the Chenchu (53.57%) which may be explained by large scale migration to the adjacent states where there counterparts live.

Rural-Urban Contrast:

There are only 16.68% are urban residents in Odisha as per2011 Census and it was 14.97% in 2001 Census. However the urban population of the Scheduled Tribes in 2011 is barely 6.21% and in 2001 the urban share was only 5.48%, (Table-4).The percentage of growth of the urban population is low primarily because of the interstate migration of tribal population. The tribal people of Odisha mostly migrate to the urban pockets of the neighboring States in search of jobs and wage earning. However we have experienced a good number of industrial sectors and township growth in Odisha during the last decade, it is therefore presumed that the percentage of urban population in the state as well as of the tribal population would be much more in 2021 Census enumeration compared to the previous Censuses.

Age-Sex Distribution:

Sex Ratio, in Indian context, is calculated as the proportion of female population to the male population and is shown as a ratio of one thousand populations. For the whole state it is found that there were 972females per 1000 males in 2001 and it increased up to 979 females per 1000 male in 2011Census. Whereas the Sex Ratio among the Scheduled Tribes in 2001 was1003 females per1000 males and in 2011 there is 1029 females per 1000 males, (Table-5).

If we categorize the Scheduled Tribe population into three broad age-groups, children up to 14 years, youth (young adults) form 15 years to 44 years and, elders beyond 45 years, and compare them with the similar age-groups of the total population among males and females, we find an interesting picture, presented in Table-6. The table reveals that during the last decade the proportion of the children (below14 years) among Scheduled Tribes is much more (39.46%) compared to the child population of the State (27.77%) as per 2011 Census. When we compare the youth population (15-44 years) of Odisha we find board similarities with a slight variations. State has about 48% youths whereas Scheduled Tribes show nearly 46% youth population. While in the elderly age group (45 years and above) the State shows a higher percentage (22.72%) compared to the Scheduled Tribes (14.63%) in 2011Census.This indicates two clear pictures) the Birth and Death Rates of the Scheduled Tribes are higher compared to the State population, ii) the Life Span of the State Population is comparatively high than that of the Scheduled Tribe population.

Tribal Literacy:

Literacy is another important feature of development. The literacy and urban percentage of the Scheduled Tribe and State Population of the two Censuses 2001 and 2011are presented in Table-7.Tribal literacy was a matter of concern for the Government since Independence and due to continuous efforts by the State as well as by the Central Governments, the Scheduled Tribes achieved a rate of literacy nearly 37% in 2001 against the State literacy 63%. These rates further increased during the last decade where the State shows about 73%

literates and the Scheduled Tribes show 52% according to 2011 Census. However, there has been a jump between 2001 and 2011, as because the Government programmes to accelerate the educational growth must have borne significant results. Obviously the tribal education has progressed at a faster pace than that of the total population of the State. The growth of education for the tribal Population was 40.54% during 2001-11 as against the literacy growth of 15.87%of the total population of the State during the same decade. This is really phenomenal. I sure, this is due to the establishment of a mega tribal residential educational institution at Bhubaneswar under KIIT university, presently separated and named as the KISS having the student strength of 25,000 and more with facilities from KG to PG classes.

Religious Divisions:

When we compare the 2001 and 2011 Census statistics we find a little decline in the proportion of Hindus among the tribesmen from 97.49 in 2001 to 93.87% in 2011. On the other hand, the Christians among the tribal people have gain the strength from 2.57% in 2001 to 4.31% in 2011. The revived tribal religion of "SarnaDharam" accounted for 0.04% of the tribesmen in 2001 belonging to the Santal Tribe in Mayurbhanj district. In 2011 the "Sarna Dharam" included under the category "other religions or beliefs, claiming altogether 1.81% of all tribesmen. It is evident that the spread of Christianity and Islam in Odisha is not so visible as compared to the Northeastern and Southern States. I am confident in saying that due to the Constitutional safeguards and the continuous socioeconomic developmental measures of the Government the tribal people did not accept conversion. Rather, in the process of development many converted tribals have returned to the fold of their original religion.

Family and Kinship in Tribal Society:

In Odisha, irrespective of whether they speak Oriya language, Dravidian language likeKui and Kuvi, Gondi, Koya, or Mundari languages such as Juang, Munda, Ho, Santali, Saora, Gadaba, Bondaetc, all tribal groups follow their patrilineal descent in their kinship systems. For all of them the family is the basic social unit in villages. Overwhelmingly

they live in nuclear families and sons live separately after marriage. Yet there are the Saora, who have predilection to live in extended families as distinct from their western neighbours, the Kond. More usually, some of the brothers go on living together among many tribes during the life time of one of the parents. In an economy of hunting and food gathering of the Birhor or the Kharia of North Odisha, perhaps due to the scarce resources, do not encourage the long survival of the older people. A hard working married couple with a small family can barely make both ends meet. In shifting cultivation economy, the resources are still not plenty and it is found that the village youth or village elders come together for helping the lone window or invalid man. Some arrangements are also made for the cultivating the plot of shifting cultivation, on her/his behalf. This is nothing but an informal village social security system. Though largely depending on shifting cultivation the Saora have in many villages extensive terrace agriculture. Terracing is an arduous labour-intensive and time-taking job, conferring individual rights in the terrace plots. This might have been the most potent motivation to keep the brothers together long enough to form the Saora tradition of living in extended families. However, it must have been the millennia-hard traditions among the settled agriculturists, like the Santal, Munda, Oraon, Kissan, Gond and the Ho to live normally in small nuclear families.

Tribal Youth and Tribal Elite:

There are certain features of tribal society in Odisha which should be emphasized in the interest of their development. All the national leaders want to harness the youth power for our national development. Yet the tribal youth in many tribal societies, have achieved a level of organization and motivation, which should be further whetted in the interest of the village or micro-regional development. Most of us know of the village youth dormitories of the Kond, Ho, Bhuiyan, Bondqthe Juang and of a few other tribes. These were the informal yet co-ordinated village watch and word, social service squads and cultural troupes.

The young men and young women who are in higher schools and colleges, in factories or mines, may not be looked upon with pride always by the tribal elders, but they know that they hold the keys to the

future development of the tribal communities. Many of these younger men, imbued with a spirit of reform and reconstruction, have organized tribal solidarity movements, tribal cultural organization or social mobility movements focusing on their own tribe or allied tribes. If the section of tribal elite and the tribal youth in general attract the understanding and sympathy , also a little resource-support form the wider public and the Government, the brighter days for our benighted tribal brethren may not be far away. The brighter youth from among them may be given special orientation and training to assume leadership of the village youth and to act as rural innovators. The tribal youth in one area, belonging to one tribe, may be given facilities to travel to other tribal and developed areas to see and learn from other tribal and developed areas to see and learn from others. For example tribal youth from the shifting cultivation economies may visit the Ganjam and Koraput Hill Saoras and learn from them how they can make terraces, grow luscious oranges and bananas and even engage in some trade and commerce. Elsethey can visit the Munda, Santhal, Bhumij, Bathudi, Oraon or the Gond villages or North Odisha to find out for themselves how plain agriculture can be improved and made profitable for their society.

Conclusion:

Although tribes of Odisha are slowly and continuously progressing in the path of socioeconomic and demographic development still there are miles to go. The few urban and industrial pockets attract rural – urban migration resulting unimaginable health and environmental problems in these sectors. On the other hand, the forest contractors and the multinational companies are constantly destroying the rich forest resources which are not only the tribal habitations but also the backbone of our ecosystem. As a result of this some tribals have taken to terrorist activities in protest of such anti tribal and anti environmental projects of development. To get rid of such problems some Anthropologists and Rural Sociologists have suggested alternative methods of development. They have emphasized for the implementation of forest and agro based small scale industries with the participation of local tribals. This would encourage the tribals to be a part of their developmental process without destroying their rich cultural heritage and forest

ecosystem. Moreover the infrastructural development, healthcare facilities, educational complexes and many such government sponsored programs should also continue unabated. I am confident that with the implementation of such eco-friendly sustainable development projects the tribes of Odisha would show a much better socioeconomic and demographic scenario in the coming years.

Table-1: Population and Growth of Scheduled Tribes, 1961- 2011

Census Year	Population of Odisha in Millions	Tribal Population in millions	Proportion of S.T. (%)	Growth of S.T (%)
1961	17.5	4.2	24.1	-
1971	21.9	5.1	23.1	20.1
1981	26.4	5.9	22.4	16.8
1991	31.7	7.0	22.3	18.8
2001	36.8	8.1	22.1	15.9
2011	41.9	9.6	22.9	17.7

(Source: Calculated from the Census data of Odisha, 1961-2011)

Table - 3: Tribes Declining During 1991-2001 and 2001-2011

Sl. No.	Name of the Tribe 1991-2001	Decline Percentage 2001-2011	Decline Percentage
1	Baiga	-65.36	-37.29
2	Bhumia	-5.49	+21.67
3	Bhunjiaa	+64.10	-33.26*
4	Binjhal	-1.51	+16.02*
5	Birhor	-14.92	-15.10

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30. PARTICIPATORY GOVERNANCE FOR SCHEDULED AREAS

The tribal dominated areas, where the concentration of tribal population is 50% or more are declared as Scheduled Areas. The purpose of identifying the Scheduled areas is to provide special developmental assistance to this section of tribal Population and to bring them to the main stream. Having done this since 1975 and keeping these tribes under the sub-plane approach of development, no effective results are noticed so far. Even the ITDA and Micro Projects of 1970s and 80s did not hold any good due to lack of proper governance, execution and political will.

Examples of our governance system:

The executive authorities did not follow the participatory of development. For any developmental activity the participation of local Tribal is essential. Tribals should know what kind of development is to be under taken in their areas. Without understanding their strong belief systems and traditional practices it would be very difficult to implement the development programs. Government might spend money on any program but it would not hold good without tribal acceptance. For instant government has constructed many tile roofed houses in Tribal rehabilitation programs. However after a gap of 4-5 years many such tile roofed houses were replaced by the traditional thatched houses. The reason being tribal do not know to replace the tiles nor they do not know how to prepare the tiles by using the local available materials. Many such failure examples of agricultural, educational, plantation programmes could be cited.

Our governance was definitely rural centric but hardly tribal centric. As 90% of the tribal population live in forest and mountain ranges, the network of development hardly riche those people. Once a Prime Minister of our country in 1990 said that 80 to 90% of the

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developmental packages could not rich the target population. We the planers, administrator, researchers and political representatives been pondering and questioning about the causes of search failure.

Programmes and Causes of Failure:

I am cocksure many administrators and political representatives know the causes of such continuous failure since long. Definitely they are not ignorance nether they lack administrative acumen. They are the so called creams of our society who make rules for development and governance. They have even changed the "top bottom" approach of development and made it "bottom top". That also did not work as expected. In many states the Gandhian model of development was introduced in the form of Panchaytraj and Self Help Group. As it is understood the Panchyatraj administration is not so effective in the scheduled areas for providing the fruits of development. Government with the help of some benevolent planners, tribal experts and anthropologist launched PESA (Panchyatraj Extension to Scheduled Areas) Act in 1996 the main purpose of this Act was to insure self governance through traditional Gram Savaa. However the PESA Act could not much effective. Rather the forest right act (FRA) of 2006 which recognized the forest dwellers to the forest resources. As a result of FRA 2006 many socio-economic needs of the forest depended communities could be solved to some extent.

There are also many other schemes and programs for tribal educational and economic such as pre and post matric scholarship, Rajiv Gandhi National Fellowship, overseas fellowship, special economic packages for PVTGs (Particularly Vulnerable Tribal Groups) and special central Assistance to tribal sub-sections (TSS) , grant in aid to tribal research institutes (TRIs), marketing facilities of the forest produce, (MFP) through minimum support price (MSP) and such others launched during time to time. Very recently, in April 2022 Central Government has raised the Tribal Development Funds 4 to 5 times as of 2013. For the first time a Development Board for the nomadic and semi-nomadic tribes has been cratered. Special measures are also being taken for protecting the traditional cultures and indigenous knowledge.

Suggestion for Participatory Approach:

All the above Government schemes and programs would be successful to a maximum extent provided there is participatory approach to development and governance. For participatory development some members of the local tribes should be included in the execution and monitoring team. However, for participatory governance the views of the traditional tribal leaders should be taken into account before framing any plan or scheme for their development. The development planers should know that every tribe has a Tribal Chief as well as regional and village representatives, (not necessarily the Headman of the village) as per their traditional political organization.

The three-tier Panchayatraj System (Zilla Parisad-Block-Panchayat) can not replace the traditional system (Tribal Chief-Regional Chief-Village Head) of governance. In the PECA Act government had given some importance to such traditional leaders who had some role in the Governance of the Scheduled areas. But I doubt the views of such traditional leaders are given due importance. As long as there views are not taken care of the development programs of the Scheduled Areas would not be that successful as expected.

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❖ ❖ ❖

NOTES

Prof. Nirmal Chandra Dash (b.1953) has over 45 years of Research and 35 years of Teaching experience. He was the first Anthropology Honours Graduate in the State who pursued his Post Graduate in Anthropology at Utkal University being a recipient of National Merit Scholarship and received First Class Master's Degree in 1975. After which he joined the International Institute for Population Sciences (IIPS), Mumbai as a Government of India (GOI) Fellow in 1976 and obtained his M.Phil. Degree. He then opted Utkal University for his Doctoral Research after receiving UGC jr. Fellowship in 1977. He discontinued the Fellowship and Joined as a Lecturer in the Department of Anthropology in a Premier Government College (BJB) of the State in 1978. Then he served at Khallikote Autonomous College, Berhampur (1990-2001) and DD Autonomous College, Kendujhar (2001-2004). Prof. Dash joined FM University, Baleshwar as a Professor in the newly opened Department of Population Studies and got Superannuation in the year 2013. Then he joined KISS University as a Visiting Professor but could not complete his term due to the health conditions of his wife.

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